

Contents

Preface

This section tells you about special features, safety information, and preparatory information for using this manual

Chapter 1: Setting UP

This section shows you the steps necessary for installing and presetting your VIDEO TV, and how to connect optional video and audio equipment.

Chapter 2: Using Basic VIDEO TV Features

This section gives you basic information about operating and adjusting your VIDEO TV

Chapter 3: Using Advanced TV Features

This section shows you the steps for other useful TV features with using the On-Screen Menus.

Chapter 4: Using Basic VCR Features

This section gives you basic information about operating and adjusting your VCR.

Chapter 5: Using advanced VCR Features

This section shows you the steps for other useful VCR features with using the On-Screen Menus.

Appendix

This section gives you specifications and troubleshooting information.

 For a detailed table of contents, see p. 3.

Trinitron[®] Color Video TV

Operating Instructions

Before operating your VIDEO TV, please read this manual thoroughly and retain it for future reference.

KV-13VM30/31 KV-20VM30

VHS

VCRPlust

Owner's Record

The model and serial numbers are located at the rear of the VIDEO TV. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No Serial No



To prevent fire or shock hazard, do not expose the unit to rain or moisture.



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

When using TV games, computers, and similar products with your VIDEO TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Note to CATV system installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Use of this VIDEO TV receiver for other private viewing of programs broadcast on VHF or UHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program.owner.

Do not use this VIDEO TV if moisture has condensed, such as on its CRT, otherwise it may cause malfunction. In this case, leave the VIDEO TV unused until it gets dry.

Precautions

Safety

- Operate the VIDEO TV only on 120V AC.
- One blade of the plug is wider than the other for safety purposes and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the VIDEO TV and have it checked by qualified personnel before operating it any further.
- Unplug the VIDEO TV from the wall outlet if you are not to going to use it for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installing

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the VIDEO TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the VIDEO TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

Repacking

Keep the original carton and packing materials to use for safe transport of your VIDEO TV in the future.

If you have any questions or problems concerning your VIDEO TV, please contact your nearest Sony dealer.

This VIDEO TV receiver provides display of television closed captioning in accordance with 15.119 of the FCC rules.

Information

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

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Introducing the Sony Trinitron® Color VIDEO TV

About the manual

- We highly recommend that you read this manual before using your VIDEO TV combined Television and VCR.
 Keep the manual handy for future reference.
- The instruction in this manual are for the KV-20VM30 and KV-13VM30/31. The KV-20VM30 is used for illustration purposes.

Features

With the following features, you can:

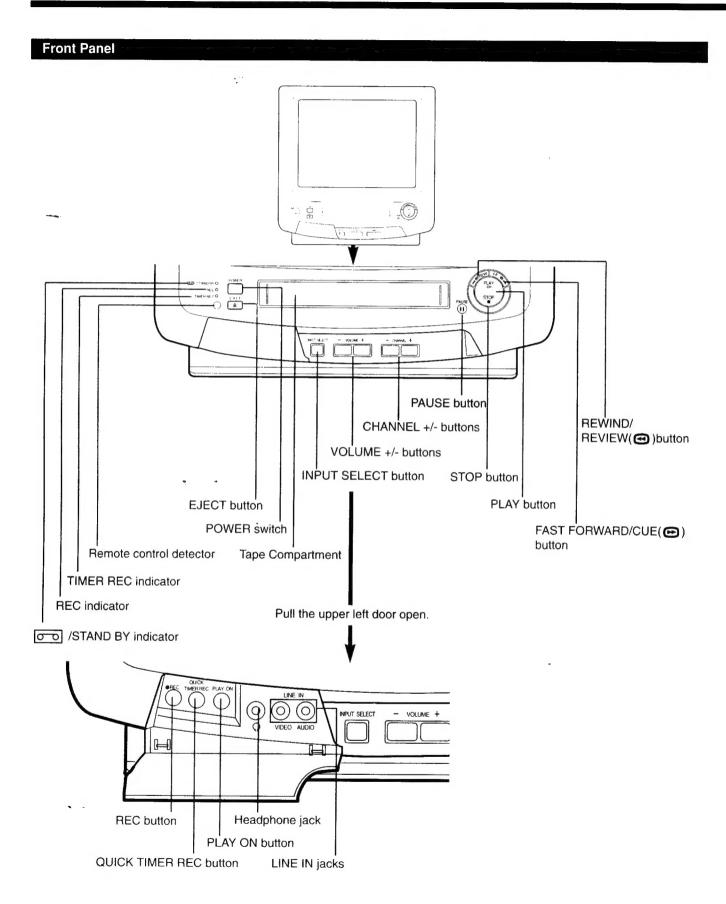
- Watch up to 125 cable channels for a total of 181 possible off-air and cable channels with the multi-band VHF/UHIF/CATV tuner.
- Enjoy 4 head high quality picture and variable speed playback.
- Set and adjusts the time automatically by using Auto Clock™ set features.
- Quickly and easily preset the VCR to record programs by using VCR plus+* system.
- Call up on-screen menus to set timer-activated functions (Auto clock set, Manual clock set, On/Off Timer, Channel Block set), Cable on/off, AUTO Program, CH Erase/Add, Tape remain, Auto Repeat On/Off by using the SET UP feature.
- View the closed caption and the text by using Caption Vision.
- Enjoy automatic Playback by automatically playing, a cassette tape that has had its erase-protection tab removed.
- Record programs without using the program recording timer while you are away, by using the QUICK TIMER.
- Monitor quickly other Video/Audio sources (such as a camcorder, a video game, etc), by using the PLAY ON™.
 - * VCR plus+ and plus code are trademarks of Gemstar Development Corporation. VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

With the supplied Remote Commander, you can:

- Use the CHANNEL BLOCK feature, with which picture is blocked and sound is muted, to prevent children from watching unsuitable programs.
- Switch quickly between two channels by using JUMP.
- Set the TV to automatically shut off after 30, 60, and 90 minutes by using the SLEEP timer.
- Program the VCR to make up easily to six unattended recordings within a 1-month period, including daily and weekly recordings, by using TIMER ON-SCREEN.
- View a slow motion during playing back, by pressing -SLOW+.
- View a picture frame by frame during PAUSE/STILL picture, by pressing FRAME.
- Playback pictures in twice speeds by pressing **X2**.
- View a single frame by using PAUSE.
- Make sections of tape so you can quickly and easily return to the section you want to watch, by using INDEX and MARK.

Locating the Controls

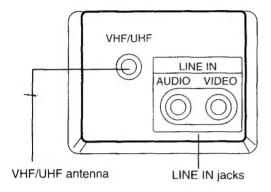




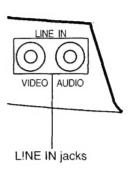
Locating the Controls

Rear and Front Panel

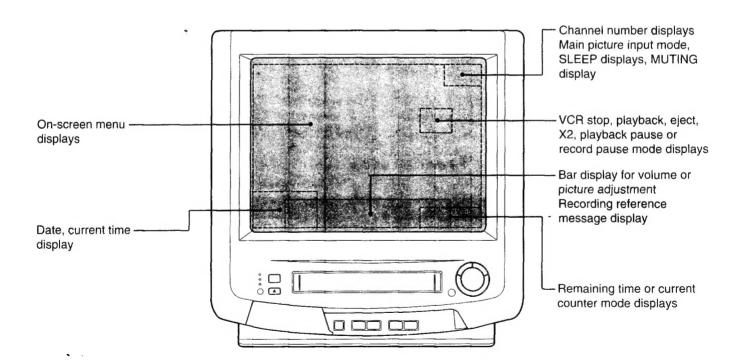
Rear Panel



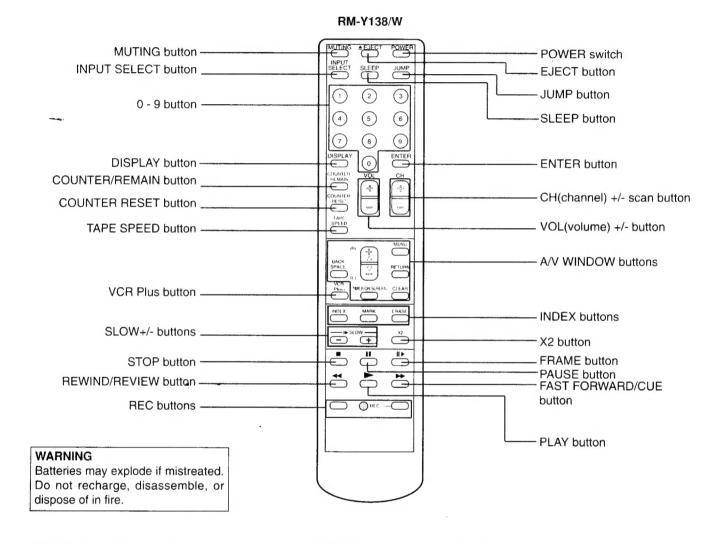
Front Door Inside

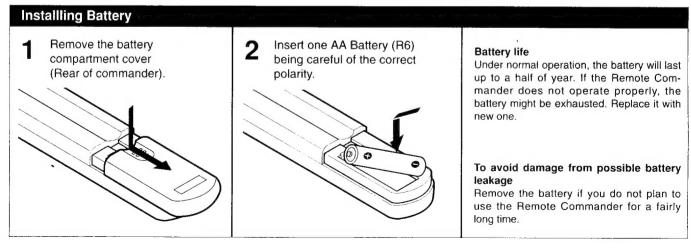


Screen Displays



Remote Commander





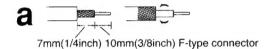
Connecting TV Antenna/Cable

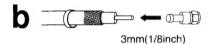
Although you can use either an indoor or outdoor antenna with the VIDEO TV, an outdoor antenna will provide you with better picture quality. You can receive cable TV by connecting a cable supplied by your local cable company.

Connecting VHF, UHF or VHF/UHF Combination Antenna, or CATV Cable

75-ohm coaxial cable (round)

- Check your antenna cable type and prepare the end of the cable using the F-type connector.
- -- Attach an F-type connector (not supplied).









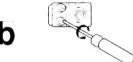
300-ohm twin-lead cable (flat)

Check your antenna cable type and prepare the end of the cable using the 300-ohm twin-lead cable.

Attach the supplied antenna connector.

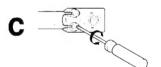


Loosen both screws on the connector with screwdriver.

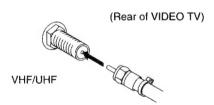


Attach the cable and tighten both screws with a

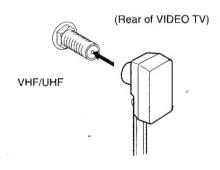
screwdriver.



Plug the connector into the VHF/UHF terminal at the rear of the VIDEO TV.



2 Plug the connector into the VHF/UHF terminal at the rear of the VIDEO TV.



- * Most combination antennas are equipped with a signal splitter.
 - Remove the splitter and attach the appropriate connector.

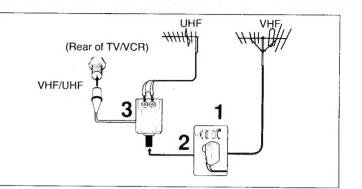
Connecting Both VHF and UHF Antennas

Use the EAC-66 U/V mixer (not supplied).

Prepare the VHF antenna end using the appropriate connector (p. 8).

2 Connect the cables to the mixer.

Attach the mixer to the VHF/UHF terminal.



When the U/V mixer is used

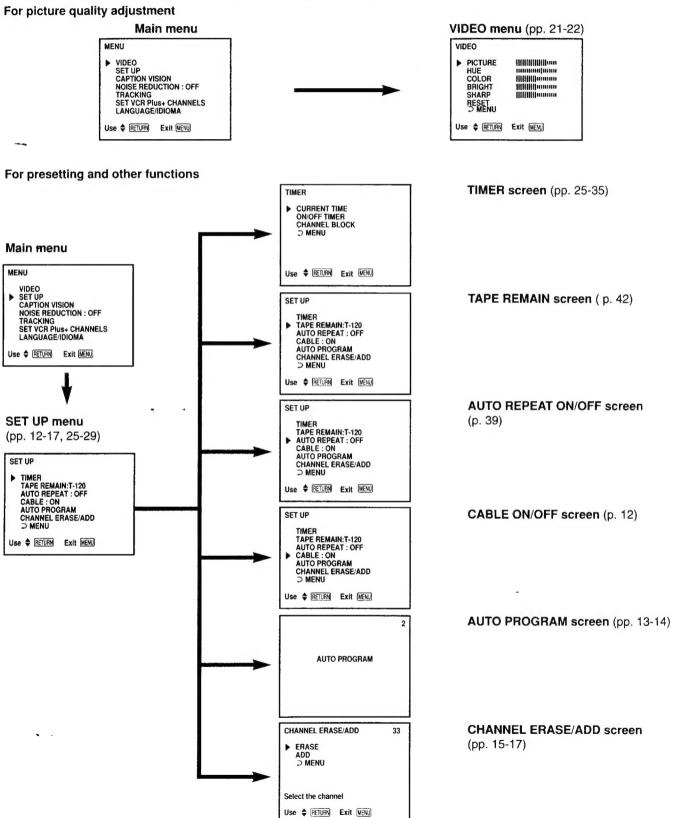
Snow and noise may appear in the pictures when viewing cable TV channels over 37 (W + 1).

Note

For better picture quality, we would recommend you to connect an outdoor antenna.

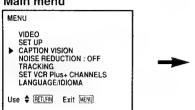
Using the On-Screen Menus

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.



For closed caption setting

Main menu

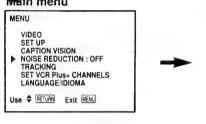


CAPTION VISION menu

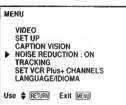


CAPTION VISION screen (p. 23)

For noise reduction function Main menu



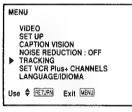
NOISE REDUCTION menu



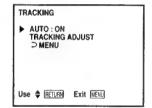
NOISE REDUCTION screen (p. 24)

For tracking adjustment function

Main menu



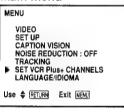
TRACKING menu



TRACKING screen (p. 41)

For VCR Plus+ CHANNELS setting

Main menu



SET VCR Plus+ CHANNELS menu



SET VCR Plus+ CHANNELS screen (p. 44-46)

For on screen language selection function Main menu LANGUAGE SELECTION menu



→

LANGUAGE/IDIOMA ▶ ENGLISH ESPANOL ⊃ MENU

Use \$ RETURN Exit MENU

To select the LANGUAGE/IDIOMA

Press \triangle + or ∇ - to select the desired language mode. And, press RETURN.

Navigating Through the Menus

Use the buttons on the remote commander.

To display the main menu Press MENU.

To return to the normal screen Press MENU on the Remote Commander.

To return to the previous menu

Press \triangle + or ∇ - to select MENU. Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

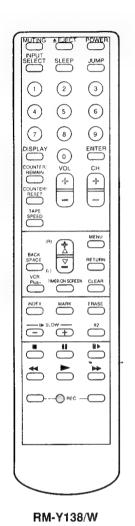
Note -

The menus disappear automatically if you do not press a button within 60 seconds.

Turning the Cable Mode On or Off

All of the controls are on the Remote Commander.

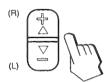
If you have cable connected to your VIDEO TV (p. 8-9) follow the steps below to turn the cable connection on or off. CABLE is preset to OFF when you use your VIDEO TV for the first time. Turn CABLE to OFF to preset or watch VHF or UHF channels.



■ Press MENU.

The Main Menu appears

Press \triangle + or ∇ - to select SET UP, in main menu.



Press RETURN.
The SET UP menu appears.



VIDEO

► SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

MENU

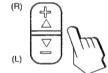
Use \$ RETURN Exit MENU

SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE/ADD
DMENU

Use \$ RETURN Exit MENU

9 Press △+ or ▽- to select CABLE.



Press RETURN.

SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE/ADD
D MENU

Use \$ RETURN Exit MENU

Press △+ or ▽- to select ON or OFF alternately.



TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF

▶ CABLE: OFF
AUTO PROGRAM
CHANNEL ERASE/ADD

> MENU

Use \$ RETURN Exit MENU

Press RETURN.

The setting is completed.



To return to the normal screen Press MENU.

Note -

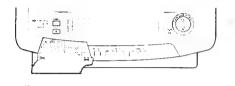
If the VIDEO TV is in LINE mode, you cannot select CABLE. Repeatedly press INPUT SELECT to change to TV mode.

Presetting TV Channels



Once you have preset the channels on your VIDEO TV, you will be able to use the channel +/- buttons on the VIDEO TV or the Remote commander to scan the channel you selected.

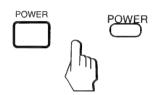
Presetting TV Channels Automatically



Note

Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

Press POWER on the VIDEO TV or the Remote Commander to turn the VIDEO TV on.



2 Using the Menu, select cable off to receive VHF/UHF channel. Select cable on to receive cable stations.

(Follow the steps in "Turning the Cable Mode On or Off", p. 12.)

Press MENU.
The main menu appears.



▶ VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

MENU

MENU

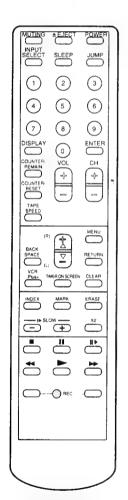
Press △+ or ▽- to select SET UP.



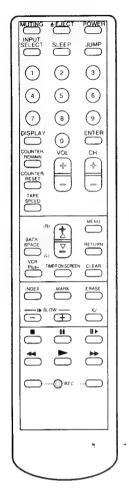
VIDEO

► SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU



RM-Y138/W



RM-Y138/W

Receivable channels for this TV

VHF: 2-13 UHF: 14-69 Cable: 1-125

To select TV channels without presetting Press 0-9.

To return to the normal screen Press MENU.

To erase unnecessary channels, or to add channels that could not be preset automatically because their signal was too weak, follow the steps in "Erasing Unnecessary Channels CHANNEL ERASE" and "Presetting Only Desired Channels-CHANNEL ADD" (pp. 15-17).

Press RETURN.

The SET UP menu appears.



SET UP

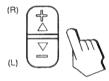
TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE/ADD
D MENU

Use ♦ RETURN Exit MENU

Note

If the VIDEO TV is in LINE mode, you cannot select AUTO PROGRAM. Press INPUT SELECT to change to TV mode.

F Press △+ or ▽- to select AUTO PROGRAM.



Press RETURN.



SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE/ADD
DMENU

Use \$ RETURN Exit MENU

AUTO PROGRAM

"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the TV's memory.

When no more channels can be found, the programming stops and the lowest numbered channel is displayed.



Erasing Unnecessary Channels - CHANNEL ERASE

Use this feature to erase unnecessary TV channels, so that when you press CH+/-, the channel(s) are skipped.

Press the CH +/- button to select the channel you want to erase. For example, to erase channel 8, press CH + or - until 8 appears.





Press MENU.
The main menu appears.

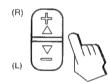


MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR PIUS+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit (MENG)

Press △+ or ▽- to select SET UP.



Press RETURN.
The SET UP menu appears.



VIDEO

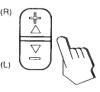
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use

RETURN
Exit MENU



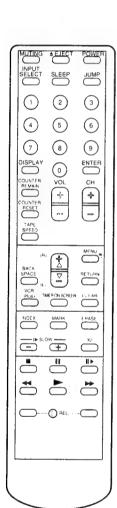
Press △+ or ▽- to select CHANNEL ERASE/ADD.



SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE ADD
MENU

Use \$ RETURN Exit NEW.

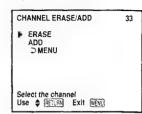


RM-Y138/W

Press RETURN.

The CHANNEL ERASE/ADD screen appears, and the cursor points to ERASE.





Note

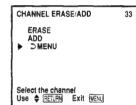
If the VIDEO TV is in LINE mode, you cannot select CHANNEL ERASE/ADD. Press INPUT SELECT to change to TV mode.

5

Press RETURN.

A "-" sign appears in front of the channel number display showing that the channel is erased from the channel scan memory.







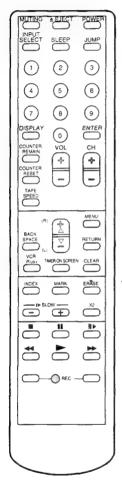
Press MENU.



The next time you press the CH +/- buttons, channel 8 will be skipped.

To erase other channels

Repeat steps 1-6.



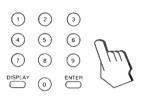
RM-Y138/W

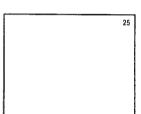
To return to the normal screen Press MENU.

Presetting Only Desired Channels - CHANNEL ADD

Use this feature to add channels one at a time to the channel scan memory.

Press 0-9 to select the channel you want to add. For example, to add channel 25, Press 2, 5 and ENTER.





2 - 4 (Follow steps 2-4 in "Erasing Unnecessary Channels-CHANNEL ERASE," pp. 15-16)

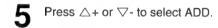
Note

69

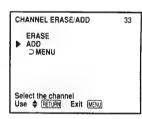
ENTER

rg.

If the TV is in LINE mode, you cannot select CHANNEL ERASE/ADD. Press INPUT SELECT to change to TV mode.



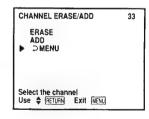




Press RETURN.

A "+" sign appears in front of the channel number display showing that the channel is added to the channel scan memory.





To return to the normal screen Press MENU.

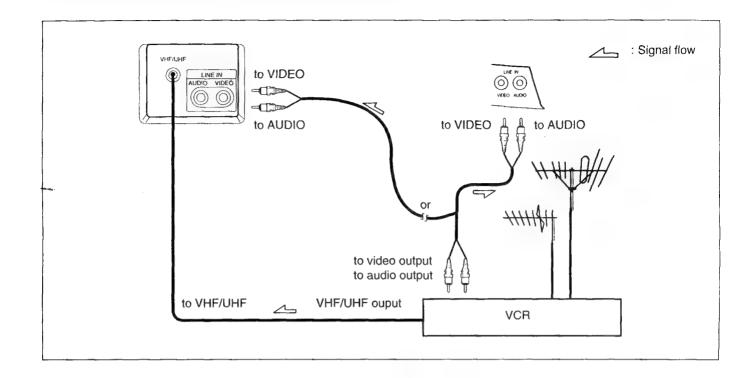
RM-Y138/W



To add other channels

Repeat steps 1-6.

Connecting Other Equipment



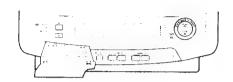
- Remove the antenna cable from the VIDEO TV Antenna terminal. Connect the antenna cable to the antenna terminal of the other Video/Audio source (ex. Video recorder). Then connect a coaxial cable from the VHF output terminal back to the antenna terminal of the VIDEO TV.
- To use your VIDEO TV to monitor an audio/video source (such as another VCR, a Camcorder or a Laser Disc Player), connect the audio/video source output jacks to the AUDIO/VIDEO IN jacks on the rear panel or front door of the VIDEO TV.

 Then select LINE IN using the PLAY ON on the front

Notes

- Press PLAY ON on the front door of the VIDEO TV so that "LINE" appears on the screen.
- To return to TV mode, repeatedly press INPUT SELECT on the VIDEO TV or on the Remote Commander so that a channel number appears on the screen.
- For operating instructions, refer to the instruction manual furnished with the VCR.
- If the picture or sound is affected, move the VCR away from the VIDEO TV.

door.



Press POWER on the VIDEO TV or the Remote Commander to turn the TV on.

POWER

POWER

Turn the cable mode on or off to select the type of channel you want to watch, VHF/UHF or cable TV.

(Follow the steps in "Turning the Cable Mode On or Off," p.12.)

If "LINE" is displayed on the screen, press INPUT SELECT on the Remote Commander so that the channel number appears.

3 Select a channel in one of the following two ways:

To scan the preset channels* in numerical sequence Press CH +/-.





For more information on presetting channels, see pp. 13-17.

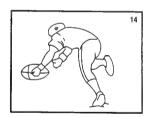
To select a channel directly

Press 0-9.

For example, to select channel 14, press 1 and 4.

You don't have to press ENTER after having pressed the desired channel number. The channel is directly selected if you do not press ENTER after 3 seconds.

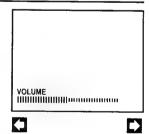
But press ENTER to select a channel quickly.



4

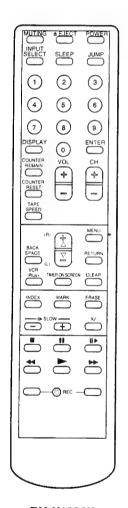
Press VOL +/- to adjust the volume.

Press VOL + to increase the volume. Press VOL - to decrease the volume.



To turn off the TV

Press POWER on the TV or the Remote Commander again.



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Using Convenient Features

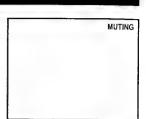
Muting the Sound - MUTING

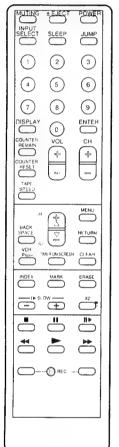
Press MUTING.

The display "MUTING" will appear on the screen.

To restore the sound

Press MUTING again.





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Keeping the Displays On-Screen - DISPLAY

If AUTO CLOCK has been set when you turn the VIDEO TV on, the display will appear for about 3 seconds as shown right.

To display the channel

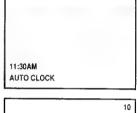
Press DISPLAY.

All the existing displays appear: channel number, date, time, VCR operating mode and tape counter.

To cancel the display

Press DISPLAY again.

The display will disappear.



12:00AM 3/11FRi

Setting the Sleep Timer - SLEEP

The sleep timer turns off the TV automatically after the amount of time you select.

Press SLEEP.

Each time you press SLEEP, the time increments 30, 60, 90 and OFF mode appear in sequence.



SLEEP (OFF
SLEEP	30
SLEEP	60
 SLEEP	90

The SLEEP display appears about one minute before the TV turns off.

To cancel the setting

Press SLEEP untill OFF mode appears.

The "SLEEP OFF" display appears for about three seconds. OR

Turn the TV off.

The sleep timer setting is cancelled.

Switching Quickly Between Two Channels - JUMP

Press JUMP once to recall the channel you were watching previously. Press JUMP again to switch back. Use this feature to keep track of two programs alternately.



You can adjust the picture for each input mode (TV mode, LINE) by pressing INPUT SELECT to select the input mode before making the adjustments.

These adjustments are retained in memory even when you turn off the TV until you change the adjustments again.

Press MENU.

The main menu appears, and the cursor points to VIDEO.

MENU

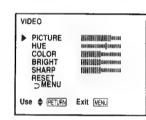
MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR PIUS+ CHANNELS
LANGUAGE/IDIOMA

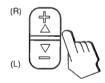
Use \$ EFURN EXIT WENT

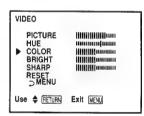
Press RETURN.
The VIDEO menu appears.





Press △+ or ▽- to select the item you want to adjust. For example, to adjust the picture color, select COLOR.



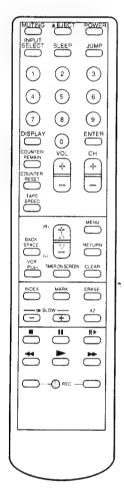


Press RETURN.

The adjustment bar appears.







RM-Y138/W

4

Press \triangle + or ∇ - to make the adjustment.

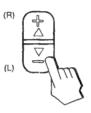


COLOR

Increase color intensity



Decrease color intensity



Press RETURN.

The new setting appears in the VIDEO menu.



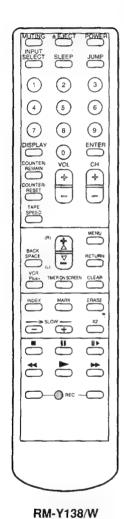
VIDEO

PICTURE JUMINIMINATION OF THE PROPERTY OF THE

Use \$ RETURN Exit MENU

To adjust other items Repeat steps 3-4.

	Press ▽ - to:	Press \triangle + to:
PICTURE	decrease picture contrast with soft color	increase picture contrast with vivid color
HUE	make skin tones become purplish	make skin tones become greenish
COLOR	decrease color intensity	increase color intensity
BRIGHT	darken the picture	brighten the picture
SHARP	soften the picture	sharpen the picture



To return to the normal screen Press MENU.

To restore the factory (mid-level) setting Go to the VIDEO menu and select RESET by pressing \triangle + or ∇ -. Then press RETURN. All the settings except for PICTURE will be restored to mid-level settings.

Using Closed Caption

Press MENU.
The main menu appears.



MENU

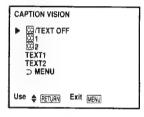
VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ PETURN Exit MENU

Press △+ or ▽- to select CAPTION VISION.
Then press RETURN.
The CAPTION VISION screen appears.

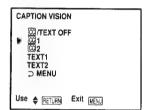




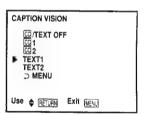


Press \triangle + or ∇ - to select closed caption mode.

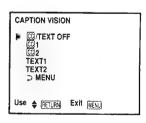
Select CC1 or CC2 to view Captions. A Caption is a printed version of the dialogue or sound effects of a program. (The mode should be set to CC1 for most programs.)



Select TEXT1 or TEXT2 to view Text. Text is information that is presented using the full to full television screen. It is usually not related to the program.



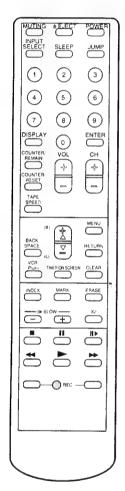
Select CC/TEXT OFF if you do not want to use the CAPTION VISION mode.



Press RETURN.
The Setting is completed.

Note

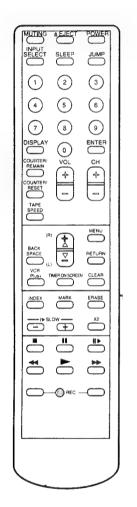
Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs can also cause errors in Closed Caption.



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Using Noise Reduction Function

You can reduce the picture noise on the screen in VCR playback mode.



RM-Y138/W

Press MENU.

The main menu appears, and the cursor points to VIDEO.

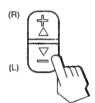


MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

Press △+ or ▽- to select NOISE REDUCTION.



MENU

VIDEO
SET UP
CAPTION VISION

NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

Press RETURN, then △+ or ▽- to select ON.





MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: ON
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

4 Press RETURN.
The picture noise is reduced.



Using the Timer-Activated Functions



INPUT SELECT SLEEP JUMP 1 2 3 4 5 6 7 8 9 DISPLAY 0 ENTER COUNTER! VOL CH REMAIN COUNTER! 400 COUNTER! 400 TAPE SPEED INDEX MARK FRASE INDEX MARK FRASE INDEX MARK FRASE INDEX MARK FRASE INDEX MARK FRASE

RM-Y138/W

() REC

Notes

- The clock cannot be set automatically if you don't receive a channel that carries a time signal in your area. If so, set the clock manually (pp28-29).
- If there are only a few channels in your area that carry time signals, setting the clock automatically may take up to about 30 minutes. If nothing happens even after you wait about 30 minutes, set the clock manually.
- The menu disappears automatically if you don't proceed for more than one minute.

Setting the Clock - AUTO CLOCK SET

Before you use the timer feature for recording program, you need to set the current time and date.

Some TV and cable channels have started to transmit time signals with their broadcasts. Your VIDEO TV can pick up this time signal to automatically set the clock. After completing the steps below, when you turn off the VIDEO TV, it will automatically search for a channel that carries a time signal and set the clock. The Auto Clock Set feature only works if a channel in your area is broadcasting a time signal. If broadcasters in your area are not yet sending time signals, set the time manually (PP28 - 29).

Clock setting is necessarry also to use ON/OFF TIMER, CHANNEL BLOCK, Timer Recording and VCR Plus Recording.

Press MENU.

The main menu appears.

MENU

MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR PIUS+ CHANNELS
LANGUAGE/IDIOMA

Use ♦ RETURN EXIT WERN

In main menu, press △+ or ▽- to select SET UP. Then press RETURN. The SET UP screen appears.





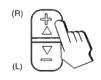
SET UP

► TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: OFF
AUTO PROGRAM
CHANNEL ERASE/ADD
→ MENU

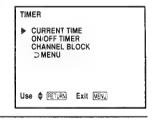
Use
□ RETURN Exit WENU

9 Press △+ or ▽- to select TIMER. Press RETURN.

The TIMER screen appears.







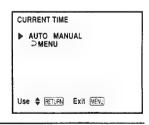
Press △+ or ▽- to select CURRENT TIME.

Press RETURN.

The CURRENT TIME screen appears.





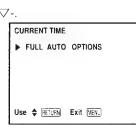


Press RETURN then select AUTO by using △+ or ▽-.
Press RETURN again.

The Auto Clock Set screen appears.





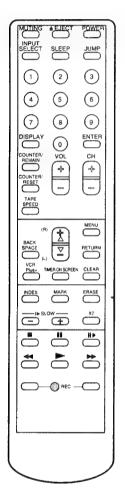


Press RETURN then select FULL AUTO by using △+ or ▽-. Press RETURN again.





When clock data service is available, the clock is set automatically with leaving the TV off



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To activate the Auto Clock Set function, turn the TV off.

The VIDEO TV automatically sets the clock.

The VIDEO TV automatically searches for a channel that carries a time signal and sets your time zone and daylight saving time (if applicable). If your clock sets, but displays the wrong time zone or daylight saving time, you can adjust these settings by following the steps below.

If the clock is not activated

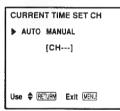
Follow steps 1 to 5 above.

Press RETURN then select OPTIONS by using △+ or ▽-.
Press RETURN again.

The CURRENT TIME SET CH screen appears.







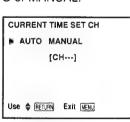
Press RETURN, then press △+ or ▽- to select AUTO or MANUAL.

If you select AUTO:

The VIDEO TV automatically searches for a channel that carries a time signal.

If you select MANUAL:

Set a channel that carries a time signal using the number buttons. Use this option if you know that channel. Most PBS member stations broadcast a time signal. For the fastest response, set the VIDEO TV to your local PBS station.



CURRENT TIME SET CH

AUTO MANUAL

[CH---]

Push 0-9 keys to set

CURRENT TIME for clock

Then push RETURN

Use \$ RETURN Exit MENU



Press RETURN.

The YOUR TIME ZONE AND DAYLIGHT SAVING TIME screen appears.



YOUR TIME ZONE AND DAYLIGHT SAVING TIME AUTO MANUAL

Use \$ AETURN Exit MENU

Press RETURN, then press △+ or ▽- to select AUTO or MANUAL.

If you select AUTO:

The VIDEO TV automatically sets your time zone and daylight saving time (if applicable).

YOUR TIME ZONE ATLANTIC EASTERN CENTRAL MOUNTAIN PACIFIC Use \$ RETURN Exit MENU

If you select MANUAL:

- 1. Press RETURN, then set the time zone of your area using \triangle + or ∇ -.
- 2. Press RETURN, then select STANDARD TIME or DAYLIGHT SAVING TIME using \triangle + or ∇ -.

DAYLIGHT SAVING TIME

STANDARD TIME DAYLIGHT SAVING TIME

Use \$ RETURN Exit MENU

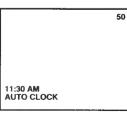
Press RETURN.



To activate the Auto Clock Set function, turn the TV off.

Notes -

- If AUTO CLOCK has been set when you turn the VIDEO TV on, the display will appear as shown right. When the display does not appear as shown right even though AUTO CLOCK has been set: using the Manual Clock Set stops the automatic channel search when your set is power off. If the Auto Clock Set feature is not in use, the channel search is not performed when your set is power off.
- · If you set the clock manually, the display will appear as shown right.



	50
12:00 AM	
3/11 FRI	

Notes

- Select STANDARD, if the DAYLIGHT SAVING TIME is not performed in your
- When you connect another VCR to the VHF/UHF antenna terminal, if VCR's tape is transmitted wrong time signal, your VIDEO TV automatically sets the clock by the time signal of the tape.

Not to set the clock by the time signal of VCR:

Turn your VIDEO TV off after having tunned VCR off or Set the clock manually on your VIDEO TV.

JUMP

(9) ENTER

+

TAPE

Setting the Clock - MANUAL CLOCK SET

EXAMPLE:

Set the time to 11:30AM, Sunday on the 25th of February, 1996.

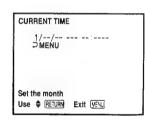
- In main menu, press \triangle + or ∇ to select SET UP. Then press RETURN. The SET UP screen appears.
- Press \triangle + or ∇ to select TIMER. Press RETURN. The TIMER screen appears.
- Press \triangle + or ∇ to select CURRENT TIME. Press RETURN. The CURRENT TIME screen appears.





Press RETURN. ""Set the month" appears on the screen. The month will appear in red.

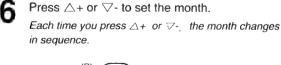


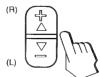


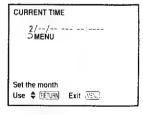
To change or correct the setting before completing it

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Press BACK SPACE to return to the item to be erased.







To display the time Press DISPLAY.

To return to the normal screen Press MENU.

Notes

 The internal clock of this VIDEO TV operates on a 12-hour cycle.

> 12:00 AM stands for midnight. 12:00 PM stands for noon.

- All the settings including CLOCK will be erased if you unplug the VIDEO TV or a power failure occurs. Reset the current time by following steps 1-11.
- You cannot change the clock during Timer Recording. To change the clock, stop the recording.

7 Press RETURN.

"Set the day" appears on the screen.



CURRENT TIME

2/1/-- --- --
MENU

Set the day
Use \$ RETURN Exit MENU

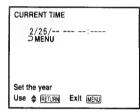
Each time you press \triangle + or ∇ -, the day changes consecutively.

Press RETURN.

"Set the year" appears on the screen.







Press △+ or ▽- to set the year.

Each time you press \triangle + or ∇ -, the year changes in sequence and the day of the week automatically changes.

Press RETURN.

"Set the time" appears on the screen.



1 ∩ Press △+ or ∇- to set the hour.

Each time you press \triangle + or ∇ -, the hour changes in sequence starting with

"12:00AM."

Press RETURN.

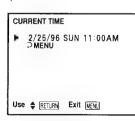


Press △+ or ▽- to set the minute.

Each time you press \triangle + or ∇ -, the minute changes in sequence.

Press RETURN.

The setting is completed and the clock starts.



Setting the ON/OFF TIMER

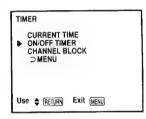
With this function you can set your favorite program to appear on the screen at the time that you set.

EXAMPLE: Set the timer to turn on the VIDEO TV every Monday through Friday at 3:15 PM for 2 hours, on channel 21.

In main menu, press △+ or ▽- to select SET UP. Then press RETURN.

The SET UP screen appears.

Press △+ or ▽- to select TIMER.
Press RETURN.
The TIMER screen appears.



Press △+ or ▽- to select ON/OFF TIMER.

Press RETURN.

The ON/OFF TIMER screen appears.

RETURN



ON/OFF TIMER

► EVERY SUN-SAT
12:00AM -h CH--⊃ MENU

Use ♣ RETURN Exit MENU

Note

If the ON/OFF TIMER display does not function, the current time has not been set and you cannot select ON/OFF TIMER. To set the clock, see "Setting the Clock-AUTO CLOCK SET/MANUAL CLOCK SET," PP 25-29.

Press RETURN.

"Set the day" appears on the screen.

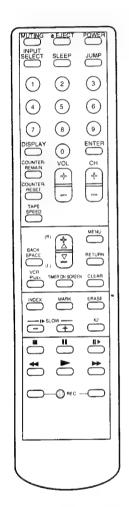
"EVERY SUN-SAT" will be changed in red.



ON/OFF TIMER

EVERY SUN-SAT
12:00AM -h CH--⊃ MENU

Set the day
Use ♦ RETURN Exit MENU



RM-Y138/W



5 Press \triangle + or ∇ - to set the day.

Each time you press \triangle + or ∇ -, the days of the week change as shown in Fig. 1 (page 32).

Then press RETURN.

"Set the time" appears on the screen.







Press \triangle + or ∇ - to set the hour that you want the TIMER to start. Each time you press \triangle + or ∇ -, the hour changes in sequence.

Then press RETURN.







Press △+ or ▽- to set the minutes.

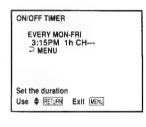
Each time you press △+ or ▽-, the minutes change in sequence.

Then press RETURN.

"Set the duration" appears on the screen.





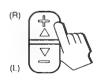


Press △+ or ▽- to set the duration of time.

Each time you press △+ or ∨-, the duration changes from "1" to "9" in sequence.

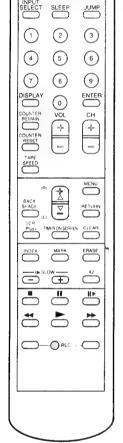
Then press RETURN.

"Select the channel" appears on the screen.









POWER

RM-Y138/W

Using the Timer-Activated Functions

9 Press \triangle + or ∇ - to set the channel that you want the TV to tune in. Each time you press \triangle + or ∇ -, the channel number changes in sequence.



ON/OFF TIMER

EVERY MON-FRI

3:15PM 2h CH21

⊃ MENU

Select the channel

Use ♦ RETURN Exit WEND

Press RETURN.

The setting is completed.





Cancelling the ON/OFF TIMER

Select the ON/OFF TIMER screen (Refer to pp. 30 - 32).
 Press RETURN.

"EVERY SUN-SAT" will appear in red.

Press BACK SPACE to erase the ON/OFF TIMER.



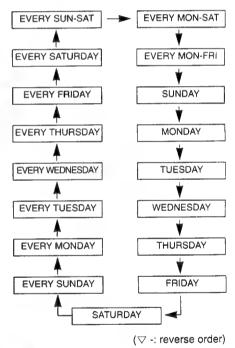


Notes

- One minute before the timer goes off, the "TV will turn off" will appear on the screen.
- If you have not set the clock correctly, the ON/OFF TIMER will not operate at the proper time. To set the clock, see "Setting the Clock-AUTO CLOCK SET/MANUAL CLOCK SET," pp 25-29.
- All the settings including ON/OFF TIMER will be erased if you unplug the VIDEO TV or a power failure occurs. Reset the TIMER by following steps 1-9.

Fig. 1 Selecting the day(s) of the week

When you press \triangle +, the days of the week appear in the following order.



To Change or Correct Setting the ON/OFF TIMER

Before completing it

Press BACK SPACE to return to the item to be changed or corrected. When it is displayed in red, set it again by using the \triangle + or ∇ -.

After completing it

Select the ON/OFF TIMER screen.

Then, press RETURN to return to the item to be changed or corrected. When it is displayed in red, set it again by using the \triangle + or ∇ -.

Note :

To return to the normal screen Press MENU.

If "RESET CHANNEL BLOCK AND TRY AGAIN" appears on the screen when you completed the setting of the ON/OFF TIMER.

The ON/OFF TIMER setting overlaps the setting of the day, time, duration and channel of the CHANNEL BLOCK.

Change the setting of the CHANNEL BLOCK or the channel setting of the ON/OFF TIMER.



Setting the CHANNEL BLOCK

This feature allows you to prevent children from watching unsuitable programs. Make sure the clock is set correctly. If it is not, set the clock first (pp. 25 - 29).

1 In main menu, press \triangle + or ∇ - to select SET UP.

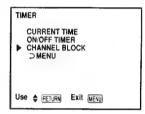
Then press RETURN.

The SET UP screen appears.

Press △+ or ▽- to select TIMER. Press RETURN. The TIMER screen appears.







Press △+ or ▽- to select CHANNEL BLOCK.
Then press RETURN.
The CHANNEL BLOCK screen appears.

"Select a program" appears on the screen.





CHANNEL BLOCK

1EVERY SUN-SAT
12:00AM -h CH--2EVERY SUN-SAT
12:00AM -h CH--D MENU
Select a program
Use \$ RETURN Exit WEWN

4 Press RETURN again.
"Set the day" appears on the screen.



CHANNEL BLOCK

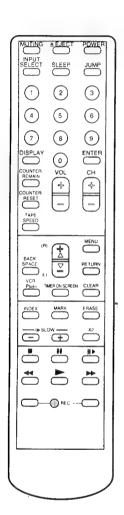
1EVERY SUN-SAT

12:00AM -h CH--
2EVERY SUN-SAT

12:00AM -h CH--
⊃ MENU

Set the day
Use

□ RETURN Exit MENU



RM-Y138/W

Fress △+ or ▽- to set the day.

Each time you press \triangle + or ∇ -, the days of the week change as shown in Fig. 1 (page 32).

Then press RETURN.

"Set the time" appears on the screen.

(R)





CHANNEL BLOCK

1EVERY MON-FRI 12:00AM -h CH---

2EVERY SUN-SAT 12:00AM -h CH---⊃MENU

Set the time
Use

RETURN Exit MENU

Press \triangle + or ∇ - to set the hour that you want to start blocking time. Each time you press \triangle + or ∇ -, the hour changes in sequence.

Then press RETURN.





CHANNEL BLOCK

1EVERY MON-FRI
3:00PM -h CH---

2EVERY SUN-SAT 12:00PM -h CH---⊃MENU

Set the time
Use \$ RETURN Exit MENU

7 Press \triangle + or ∇ - to set the minutes. Each time you press \triangle + or ∇ -, the minutes change in sequence.

Then press RETURN.

"Set the duration" appears on the screen.





CHANNEL BLOCK

1EVERY MON-FRI 3:15PM 1h CH---

2EVERY SUN-SAT 12:00AM -h CH--⊃ MENU

Set the duration
Use \$ RETURN Exit MENU

8 Press \triangle + or ∇ - to set the duration of time. Each time you press \triangle + or ∇ -, the duration changes from "1" to "12" in sequence.

Then press RETURN.

"Select the channel" appears on the screen.

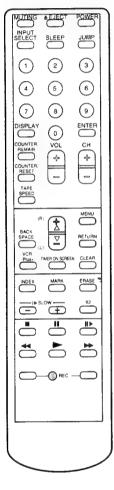




CHANNEL BLOCK 1EVERY MON-FRI 3:15PM 2h CH---

> 2EVERY SUN-SAT 12:00AM -h CH---⊃MENU

Select the channel
Use \$\frac{\text{RETURN}}{\text{ENU}} \text{Exit} \text{MENU}



RM-Y138/W

 $oldsymbol{Q}$ Press \triangle + or ∇ - to set the channel that you want the TV to block out.

Each time you press \triangle + or ∇ -, the channel number changes in sequence.



Press RETURN.

The setting is completed.



CHANNEL BLOCK

1EVERY MON-FRI 3:15PM 2h CH21

2EVERY SUN-SAT 12:00AM -h CH---⊃MENU

Select the channel
Use \$ RETURN Exit MENU

CHANNEL BLOCK

► 1EVERY MON-FRI 3:15PM 2h CH21

> 2EVERY SUN-SAT 12:00AM -h CH---⊃MENU

Use \$ RETURN Exit MENU

10 To set another program, repeat steps 1 to 3, press \triangle + or ∇ - to select the next channel block and repeat steps 4 to 9.

Cancelling the CHANNEL BLOCK

Select the CHANNEL BLOCK screen. (Refer to page 33.)

Press RETURN.

EVERY SUN-SAT will appear in red.

Press BACK SPACE to erase the CHANNEL BLOCK.



CHANNEL BLOCK

1EVERY SUN-SAT 12:00AM -h CH---

2EVERY SUN-SAT 12:00AM -h CH-⊃MENU

Select a program
Use ♦ RETURN Exit MENU

To Change or Correct Setting the CHANNEL BLOCK

Before completing it

Press BACK SPACE to return to the item to be changed or corrected. When it is displayed in red, set it again by using the \triangle + or ∇ -.

After completing it

Select the CHANNEL BLOCK screen.

Then, press RETURN to return to the item to be changed or corrected.

When it is displayed in red, set it again by using the $\triangle +$ or $\nabla -$.

Note

Notes -

Set," pp 25-29.

the sound is muted.

block is being activated.

If you have not set the clock correctly, the

CHANNEL BLOCK will not operate at the

proper time. To set the clock, see "Setting

the Clock-Auto Clock Set/Manual Clock

All the settings including CHANNEL

BLOCK will be erased if you unplug the VIDEO TV or a power failure occurs. Reset the TIMER by following steps 1-9.

If you select the blocked channel during

the time you set, the message BLOCKED

appears and the picture is blocked and

· Recording is possible while the channel

If the CHANNEL BLOCK and ON/OFF

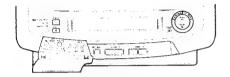
TIMER settings are overlapped, only the CHANNEL BLOCK function operates.

To return to the normal screen Press MENU.

Note

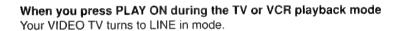
Using the Play On Functions

You can use PLAY ON on your VIDEO TV to monitor quickly other Video/Audio sources (such as a camcorder, a video game, etc).



- Connect an AV cable(Video camera, Video game, etc) to LINE IN jacks on the front door or rear panel of your VIDEO TV.
- Press the PLAY ON(Green Color button) inside the front door. "LINE" appears on the screen.

Although your VIDEO TV is in TV mode or VCR play back mode, it turns to LINE IN mode directly by pressing PLAY ON.



To return to TV mode during play on mode Press INPUT SELECT or CH +/-

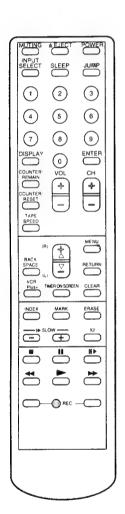
When you press PLAY ON twice during power on VIDEO TV turns off.

When you press PLAY ON during power off
Your VIDEO TV turns on and turns to LINE IN mode directly.
When you press this button again, your VIDEO TV will be turned off.

When you press PLAY ON during recording or LINE in mode, The PLAY ON button does not operate. To turn it off, press POWER.

- Note -

When the LINE IN jacks inside the front door and on the rear panel are connected to external equipment at the same time, the LINE IN jacks inside the front door are prior to them on the rear panel.



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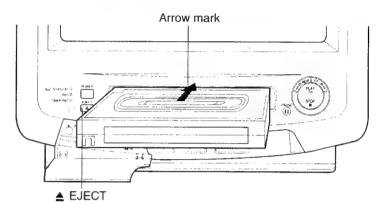


MILTING & EJECT POWER | NPUT | SELECT SLEEP JUMP | 1 2 3 4 5 6 6 | 7 8 9 | DISPLAY 0 ENTER | COUNTER | O COUNTER

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Inserting a Video Cassette

■ Insert a video cassette with the arrow mark facing upwards.



Gently press the center of the front side of the cassette until the mechanism draws it into the compartment.
When the cassette has been inserted, the (STAND BY indicator lights and the VIDEO TV turns on automatically.

Note

When you insert α cassette without a safety tab, playback starts automatically (AUTO PLAYBACK function).

Ejecting the cassette

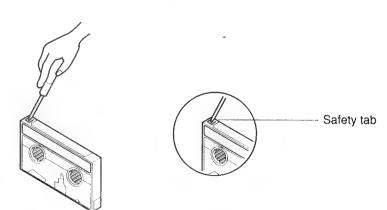
Press EJECT ▲.

You can also eject the cassette when the power is off.

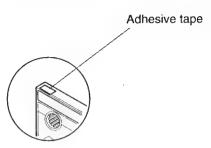
Protecting your cassette against accidental erasure

The cassette is provided with a safety tab to protect against accidental recording. Break off the safety tab with a screwdriver or other suitable tool.

If the safety tab is removed, the cassette will be ejected when you try to record on the cassette.



To record on a cassette with the safety tab broken off, simply cover the tab hole with adhesive tape.





The quality of tape you use greatly affects record/playback quality and the life of the VIDEO TV. Use only cassette tapes that have the official VHS logo.

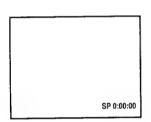
High-grade tapes give the best results, especially at the EP speed. They also have a better oxide coating that helps prevent dirty video heads. Although T-160 tapes offer the longest recording time, they contain thinner tape that is more likely to stretch or cause tape jams. We suggest that you use T-120 or shorter tapes.

Recording in the SP or EP mode is possible with this unit. When recording, select the desired recording mode (SP or EP) with TAPE SPEED on the Commander. During playback, the unit automatically detects the recording format, and then plays back the tape in the appropriate mode.

The following chart shows the maximum recording times for T-60, T-120 and T-160 tapes at the recording speeds as below.

Speed	T-60	T-120	T-160
SP	1 Hour (60 Minutes)	2 Hours (120 Minutes)	2 2/3 Hours (160 Minutes)
EP	3 Hours (180 Minutes)	6 Hours (360 Minutes)	8 Hours (480 Minutes)

Playing back a video tape in the LP mode is possible but recording in this mode is not possible with this unit.





II.

RM-Y138/W

Playing Back a Prerecorded Cassette Tape

Insert a prerecorded cassette into the tape compartment. The VIDEO TV automatically turns on.

□ Note

When playing back rental tapes, select NOISE REDUCTION:ON in main menu image detail improves.

2 If playback does not start, press PLAY ▶. The tape plays back at the speed at which was recorded.

To stop playback

Press STOP ■.

To stop playback for a moment

Press PAUSE 11.

appears on the screen and image will stop on the screen.

To resume playback, press PAUSE ■ or PLAY ▶.

appears on the screen.

When the tape is played back to the end

The tape is automatically rewound to the beginning (auto rewind). The power remains on.

•

To rewind the tape to its beginning and to playback automatically (Auto Playback Function)

In the main menu, press \triangle + or ∇ - to select SET UP during playback or stop mode and then press RETURN. And press \triangle + or ∇ - to select AUTO REPEAT and then press RETURN. By using \triangle + or ∇ -, select AUTO REPEAT to ON.

Variable Speed Playback

You can enjoy playing back pictures in variable speeds on the VCR.

Still Picture

During playback mode, press PAUSE ■. To resume normal playback, press PLAY

or PAUSE ■.

Notes

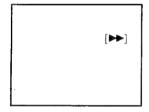
- No sound accompanies the picture, which may be unstable or have video "noise" in it. This
 is normal
- If the VCR is left in the pause mode for more than about 5 minutes, the VIDEO TV will be in playback mode automatically.

To see a slow motion (Slow Picture)

Press -SLOW+ during playing back.

To advance the picture frame by frame (Frame Picture)

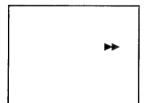
Press FRAME III during Still Picture.



To advance the tape rapidly

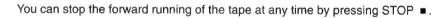
While the tape is being played back, pressing FAST FORWARD ▶ will move the tape forward at high speed so you can see the picture and choose where to stop. When you do this, [▶] appears on the screen.

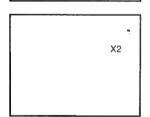
If you release the button, the VCR will return to normal playback.



When tape is not being played back and the VCR is in the stop mode, pressing FAST FORWARD► winds the tape forward at very high speed without displaying the picture.

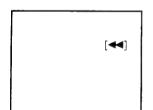
When you do this, ▶ appears on the screen.





If during the operation, the tape rewinds forward to the end, the machine will automatically stop and then rewind the tape back to the beginning again.

By pressing X2, you can now run through a tape at twice normal speed to find the exact place you want. Revert to normal speed by pressing PLAY .



To rewind the tape rapidly

At the end, STOP appears on the screen and invite you to press PLAY ...

Viewing TV Programs During Tape Playback

While a tape is being played, you can switch to watching TV broadcasts. Press STOP ■.

The VIDEO TV returns to normal TV reception mode.



Playing Back a Tape Recorded on Another VCR -

When playing back a tape recorded on another VCR, there might be some picture noise.

Tracking ensures that the tape is correctly aligned with the playback head. It only works in the "playback" mode and its principle purpose is to minimize picture shake and what is called "noise" (fuzzy lines across the picture during playback and still picture).

It is adjusted either automatically or manually.

Automatic tracking adjustment function

When playback starts, the auto tracking automatically adjusts the picture. "AUTO TRACKING" flashes for 5 seconds.

The automatic tracking control is activated in the following conditions:

- When the cassette is inserted for the first time.
- When the recording mode on the playback tape is switched from SP to EP and back again.
- When the picture is distorted by scratches on the tape.
- When TRACKING AUTO:ON is selected in the Tracking menu after the picture is adjusted automatically.

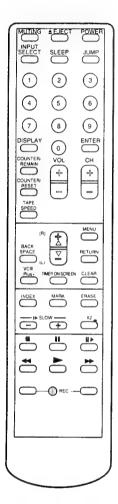
If auto tracking does not work, the tracking was probably last adjusted manually.

Adjusting the tracking manually during playback

When the playback picture proves to have streaks or snow during normal playback, Still picture or Slow picture, adjust the picture manually using the Tracking menu. Press either \triangle + or ∇ - to select TRACKING ADJUST in Tracking menu to obtain the best possible picture. Press RETURN and adjust by pressing \triangle + or ∇ -. When playing back a tape recorded on another VCR, the tracking condition is automatically adjusted on this VCR.

Notes

- Auto tracking adjustment may be impossible when the recording condition of the tape is poor.
- · During auto tracking adjustment, streaks or noise may appear.



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For seeing the remaining tape time, first

If you want to see the remaining tape time in T-120, press RETURN then $\triangle +$ or $\nabla -$ until T-120 appears in TAPE REMAIN screen. For OTHERS, press the button until

Note

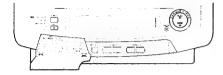
check the tape mode.

OTHERS appears.

Us	sing COUNTER/REMAIN	manufacture and the section of the s
once The hour	isplay the counter, press COUNTER /REMAIN e. tape counter shows the tape travel time in es, minutes and seconds during recording or back.	SP 0:00:00
playl	ee the remaining tape time during recording or back, press COUNTER/REMAIN twice. remaining tape time appears with "REM."	
		REM 1 : 36
Us	sing Counter Memory Function	82 T.1
reco	counter memory makes it easy to return to a particul rding or playback. The tape stops when the counter rure is especially helpful when editing a recording.	
1	Press COUNTER/REMAIN to see the counter.	
2	Start recording or playback, and press COUNTER RESET at the point you want to return to. The counter displays SP 0:00:00.	
	-	SP 0:00:00
3	Press STOP ■ when you finish recording or playing	the tape.
4	Press REWIND/REVIEW ←. The tape stops at SP 0:00:00.	
5	Press PLAY ▶ to play the tape.	

Recording TV Programs

Recording TV Programs



Caution

Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission and/or program owner.

- Insert a cassette with the safety tab.
 The VIDEO TV turns on automatically (Auto power on).
- **~**

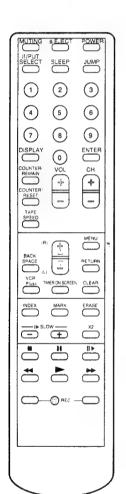
Select the recording tape speed, SP or EP, with TAPE SPEED.

Select the channel to be recorded with CH +/- or 0-9 buttons.

Press the two REC buttons on the Commander at the same time, or the REC

button on the unit.

The REC indicator lights.



To stop recording

Press STOP ■.

Temporarily to stop recording at a particular point

Press PAUSE II to eliminate unwanted station breaks or program material while recording a TV program.

REC II appears on the screen.

To resume recording, press PAUSE ■ again.

When the recording pause mode lasts for more than approximately 5 minutes, the unit enters the stop mode.

Note

When the tape reaches its end

The tape rewinds to the beginning. The power will remain on.

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Recording a Program Without Watching the TV

Turn off the power of the TV.

There will be no interference with the recording.

You cannot watch another program while recording one program.

Recording TV Programs using VCR Plus +

VCR Plus+ is a feature in SONY VCRs that simplifies the task of programming the VIDEO TV to make timer recordings.

How VCR Plus+ works

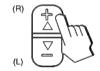
Whenever you want to record a TV program, all you need to do is to look up the program's "PlusCode," a number assigned to each program that's published in the TV section of most newspapers, cable TV listings, and even TV GUIDE magazine. Then, just enter the PlusCode of the program you want and the VIDEO TV is automatically programmed to record that show. It's that simple. With VCR Plus+, you no longer have to go through a lengthy and often repetitive procedure when you set start and stop times, channel numbers, and dates. All this information is automatically sent to your VIDEO TV when you enter the program's PlusCode.

Setting Up VCR Plus + Formation

Setting up your VIDEO TV involves coordinating the TV channel number(the number you turn on your set to watch a program) with the guide channel number (the number that's assigned to that channel in your program guide). To get the guide channel numbers, find the "Channel Line-up Chart" in the program guide for your area that features VCR PlusCodes. It usually looks like the example on page 45.

For each channel your VIDEO TV receives, use the Channel Line-up Chart to check that the channel numbers match. For example, if HBO is listed in the Channel Line-up Chart on channel 33, and your VIDEO TV receives HBO on channel 15, you need to coordinate these numbers using the following procedure. For channels in which the numbers are the same (for example, if your VIDEO TV receives HBO on channel 33, and the guide channel number is 33), you can skip this procedure.

In main menu, press △+ or ▽- to select SET VCR Plus+ CHANNELS.



MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING

▶ SET YCR PIUS+ CHANNELS
LANGUAGE/IDIOMA

Use ♦ RETURN EXIT WENU

Press RETURN
The SET VCR Plus+ Channels screen appears and the GUIDE CH is highlighted.



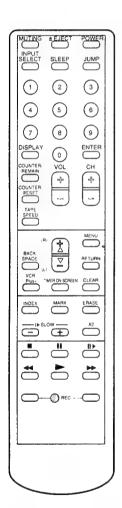
GUIDE CH TV CH
-- -
Push D - 9 keys to set

Program GUIDE CH

Or Push RETURN to see

VCR Plus+ CHANNEL LIST

SET VCR Plus+ CHANNELS



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Press 0-9 to enter the channel number assigned in the program guide and press ENTER.

The TV CH is highlighted.

1	2	(3)
\bigcirc		

(6)



SET VCR Plus+ CHANNELS GUIDE CH TV CH 25 - 25

Push 0 - 9 keys to set your TV CH

Then push ENTER

PlusCode / 5:30 14 MOVIE - Musical (2hrs.) 33044 SPORTS - Golf (1hr. 25min.) 42060 CNN WS 9974 6:30 2 3 4 DRAMA-Comedy(2hrs.)17390

Example of "PlusCode"

5 SCIENCE AND TECHNOLOGY

(1hr.15min.) 73457

Press 0-9 to enter the actual number on your VIDEO TV channel.



SET VCR Plus+ CHANNELS GUIDE CH TV CH - 25 Push 0 - 9 keys to set program GUIDE CH Or Push RETURN to see VCR Plus+ CHANNEL LIST

SET VCR Plus+ CHANNELS GUIDE CH TV CH Push 0 - 9 keys to set vour TV CH Or Push RETURN to see VCR Plus+ CHANNEL LIST

Repeat steps 3-4 for each channel whose numbers don't match.

When you have set all channels, press RETURN to confirm your channel settings.



VCR Plus+ CHANNEL LIST Page 1 GUIDE TV 33 - 18 59 - 3 61 - 47 77 - 35 90 - 8 **GUIDE TV** 3 - 15 5 - 22 6 - 17 Use

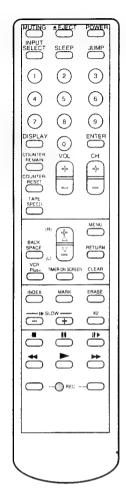
to change page
Push MENU to Exit

Example of "Channel Line-up Chart"

	CABLE CH	CABLE TV	VCR Plus+ GUIDE CH
	16	AMC American Movie Classics	35
	17	BRV Bravo (program grid only)	54
	20	CNN Cable News Network	42
	21	CSP C-SPAN	28
	22	DIS The Disney Changel	17 99
	25	DSC The Discovery Channel	37
	34	ESN ESPN	// 34
	35	FAM The Family Channel	47
	5	HBO Home Box Office	33
	27	LIF Lifetime	46
	29	MAX Cinemax	45
	30	MTV Music Television	48
1	31	NIK Nickelodean	38
L	38	SC Spetrs-Channel	59
	39	SCA Sports Chargnel America	70
	45	SHO Showtime	41
	17	TBS SuperStation	43
	44	TMC The Movie Channel	58
	49	TNN The Nashville Network	49
	50	TNT Turner Network Television	52
	51	USA Network	44

Note

To return to the normal screen. Press MENU.



RM-Y138/W

Before you start

- · Check that the clock is set correctly.
- Insert a tape with its safetly tab in place.
 Make sure the tape is longer than the total recording time.
- Turn on your VIDEO TV. When using a cable box, turn it on.

Notes

 You cannot set VCR Plus+ in the following cases:

When the VIDEO TV is turned off.

 The timer will not accept setting in the following cases:

When you select Daily for a Saturday and Sunday program.

When you select Daily or Weekly for a program more than seven days ahead. When you enter the PlusCode of a program that has already ended.

 If the 6 programs have already been preset, "6 PROGRAMS HAVE ALREADY BEEN SET" appears on the screen.

Recording TV Programs -

You can preset up to six programs within a one month time frame.

◆ Press VCR Plus+ .



VCR Plus+ 1/6 SAT

PlusCode TAPE SPEED [AT]

Enter Program's PlusCode using 0-9 keys

To change tape speed push TAPE SPEED

Press 0-9 to enter the Plus Code of the program you want to preset.

If you've made a mistake, press CLEAR and enter the PlusCode again.



After entering PlusCode, pusj RETURN

If you make a mistake, push CLEAR

3 Press TAPE SPEED to select the tape speed, SP, EP or AT.



VCR Plus+

1/6 SAT

PlusCode [26854---] TAPE SPEED

Enter Program's PlusCode using 0-9 keys

To change tape speed

■ Press RETURN.

The recording information appears on the screen. Check that the information is correct. If it is not, press CLEAR to cancel.

To preset another timer setting, repeat steps 1 to 4.

Notes

 When you press TIMER ON SCREEN after having checked the recording information, the TIMER SET/ CHECK menu appears with the recording information of program presetting using VCR Plus+. To set timer, push POWER To cancel, Push CLEAR

Once, Daily or Weekly Setting
 Press RETURN to return curser to the item presetting in TIMER SET/CHECK menu (Then refer to the step 3 on page 48 and Daily/Weekly Recording on page 49.).

Press POWER to turn off the VIDEO TV.

The TIMER REC indicator lights up and the VIDEO TV stands by for recording. When using a cable box, leave it on. The VIDEO TV automatically turns on, records the program and turns off.



You can preset up to six recordings up to one month in advance. The recordings can be preset with the Commander while referring to the TIMER SET/CHECK display on the screen.

Before you begin, check the following points.

- The date and clock must be set correctly. (See "Setting the Clock -AUTO/MANUAL CLOCK SET" on pp. 25-29.)
- · Make sure that the cassette tape is long enough to record all the programs.
- · Make sure that the safety tab on the cassette is not broken off.

Recording from today to one month later

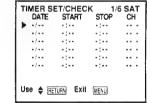
If today is August 31st, you can set the timer to record a program broadcast between today and September 30 (for 31 days). If today is January 31st, you can set the timer to record a program broadcast between today and February 28th (for 29days). A leap year is automatically considered.

Setting the Timer

Example: Suppose you want to record a program broadcast on channel 26 from 9:00 PM on Wednesday January 10 in EP mode. Note that 12:00 AM is midnight and 12:00 PM is noon.

Press TIMER ON SCREEN.
The TIMER SET/CHECK screen appears.





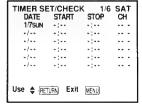
Press RETURN.

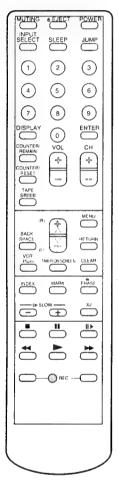
Make sure that today's date changes in red.

If not, reset the correct time. See "Setting the Clock - AUTO/MANUAL

CLOCK SET" on pp. 25-29.







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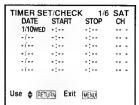
Note

During timer recording, [57] / STAND BY indicator lights.

Press △+ or ▽- to set the month and date to 1/10 WED.

The day of the week is automatically set.





Press RETURN to change the hours section under "START" in red then △+
or ▽- until 9 PM appears.

TIMER SET/CHECK 1/6 SAT

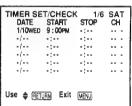




Press RETURN to change the minute section under "START" in red then △+ or ▽-until 00 appears.

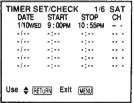






Press RETURN.
The hours section under "STOP" changes in red. Set the turn-off time referring to steps 4 and 5.

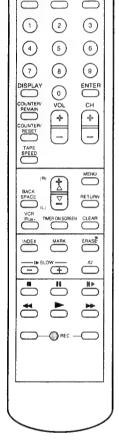




Press RETURN to change the CH position in red then △+ or ▽-until 26 appears.







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Press RETURN to change the recording speed position in red then \triangle + or ∇ until EP appears.

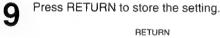




1/10WED	START	K 1/6 STOP 10:55PM	CH
	-:	-:	
	-:	-:	
	-:	-:	
-/	-:	-:	
-/	-:	-;	
Use ♦ RETU	RN Exit	MENU	

Note

The AT (AUTO SPEED) mode starts recording at the SP speed, but if it determines there isn't enough tape left to complete the programmed recording, it switches to the EP speed.





TII		T/CHEC START	K 1/6 STOP	SAT
•			10:55PM	
!	-/	* ; * *	-:	
ŀ	-/	*:**	+:	
ı	-/	-:	+:	
	-/	-:	-:	
	-/	-:	•:	
Us	e 💠 RETU	RN Exit	MENU	

After you finish programming, press POWER to turn off the VIDEO TV. The TIMER REC indicator lights.

To change or correct the setting before completing it Press BACK SPACE to return to the item to be changed.

To preset another program

Move the cursor to the second line after step 9 and repeat steps 2 to 10.

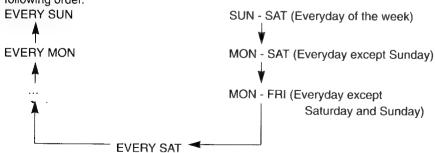
Daily/Weekly Recording

You can preset the timer-activated recording to the same program everyday of the week (Daily recording), or one day of the week(Weekly recording).

Follow steps 1 through 2 in "Setting the Timer" on page 47.

You can select the following programs.

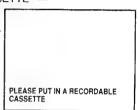
Each time you press ∇-, the indication under "DATE" on screen changes in the following order.



Notes

The following messages under each case appear on the screen:

"PLEASE PUT IN A RECORDABLE CASSETTE" ---



When switched to stand-by mode for timer recording, if a cassette is not inserted or a cassette without safety tab is inserted.

 "PLEASE PUSH POWER OFF TO SET TIMER"---

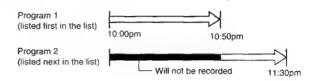
When the VIDEO TV is still turned on before the timer recording starts or when SLEEP OFF time and TIMER REC START overlap.

- "PLEASE STOP THE TAPE" ---When TIMER ON SCREEN is pressed at the same time the tape is being played back.
- "VCR IS RECORDING" ---When PLAY, FAST FORWARD, REWIND /REVIEW, EJECT, CH +/-, 0~9 buttons. INPUT SELECT, JUMP or MENU is pressed at the same time the timer recording is being done.
- "TIMER REC STARTS IN 5 MINUTES" ---5 minutes before timer recording starts.
- "PLEASE SET THE CLOCK FIRST"---When TIMER ON SCREEN is pressed in the condition the current time is not set.
- "VCR is TIMER RECORDING" ---When STOP button is pressed during recording. The recording is not stopped.
- · To stop the Timer Recording
 - 1. Press TIMER ON SCREEN TIMER SET/CHECK screen appears.
 - 2. Press △+ or ▽- to select TIMER REC PROGRAM.
 - 3. Press CLEAR The program is cleared and the timer recording stops.

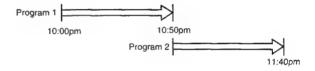
When Preset Timer Recordings Overlap

If the turn-on time of two programs are the same

The program listed first on the TIMER SET/CHECK display has priority over the other programs. The timer recording of lower priority programs will be done from the point after program 1 is finished.

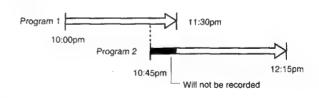


If the recording start time of program 2 is the same as the recording end time of program 1



If the recording start time of program 2 comes before recording of program 1 is over

The recording of program 2 will begin after program 1 is finished.



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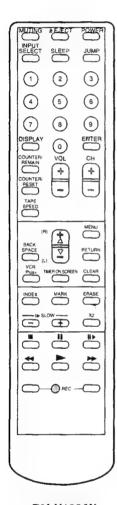
Note

If a power interruption occurs

- If a power interruption lasting less than approximately three hours occurs while the VCR is waiting for the preset time, the VIDEO TV re-enter the timer recording standby mode.
- If a power interruption lasting more than approximately three hours occurs before a timer recording, the memory clears. Reset the date and time for timer recording.
- If a power interruption lasting less than approximately three hours occurs during a timer recording, the VIDEO TV starts recording again.

If the recording start time of the program is same as the time set with ON/OFF TIMER (pp.30-32)

 The ON/OFF TIMER has priority over the timer recording so that the timer recording will not start. In this case, set the recording start time earlier than ON/OFF TIMER and the timer recording will start.



Timer Recording

Checking the Timer Settings

You can display all of the timer settings on the VIDEO TV screen to check the settings.

Press TIMER ON SCREEN.
 The TIMER SET/CHECK screen appears.



TN ▶	1/11THU 1/12FRI MON-FRI SUN-SAT	START 9:00PM 1:00PM	STOP 10:55PM 2:15PM 2:15PM 2:15PM	SAT CH 26EP 10at 10sp 11sp 25at 25at
Us	e 🕭 Reti	AN Exit	MENU	

Press TIMER ON SCREEN again to return to the original screen.

Notes |

The TIMER SET/CHECK display

- When a recording is set for only one day, that setting is erased from the TIMER SET/CHECK display after the recording is over.
- The timer recording programs by using VCR Plus+ is also displayed in the TIMER SET/CHECK on-screen menu.

Changing or Cancelling the Timer Settings

The timer settings can be changed or cancelled by referring to the TIMER SET/CHECK display.

Press TIMER ON SCREEN.
TIMER SET/CHECK screen appears.





Press △+ or ▽- to move the cursor to the program you wish to change or cancel.



TIMER SE' DATE 1/10WED 1/11THU 1/12FR MON-FRI SUN-SAT EVERY-SAT	START 9:00PM 1:00PM 1:00PM 11:00AM 11:00AM	K 1/6 STOP 10:55PM 2:15PM 2:15PM 2:15PM 2:15PM 2:15PM	SAT CH 26EP 10AT 10SP 11SP 25AT 25AT
Use ♦ RETU	RN Exit	MENU	

To change it, flash the item to be changed by pressing BACK SPACE and make the required changes by pressing $\triangle +$ or $\nabla -$.





. To cancel it, move the cursor to the item to be cancelled by pressing $\triangle +$ or $\nabla -$ then press CLEAR.

4

Press TIMER ON SCREEN to return to the original screen.

Notes

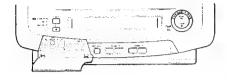
To stop recording after the timer recording has started

1. Press POWER to ON.

the original screen.

- 2. Press TIMER ON SCREEN.
- 3. Press △+ or ▽- to move the cursor to the program under recording.
- 4. Press CLEAR.
- Recording stops.
 5. Press TIMER ON SCREEN to return to

Quick Timer Recording



 To extend the Quick Timer Recording time, press QUICK TIMER REC. to advance the recording time in 30-minute

 To clear the Quick Timer Recording setting, press QUICK TIMER REC until

 If the tape runs out during Quick Timer Recording, recording will stop and the power goes off. The tape will*not rewind

 If a power interruption occurs during Quick Timer Recording, recording will stop and the power goes off. If the power

interruption lasts less than three hours and the power is restored before the

recording end time, recording will start

Notes

increments.

time length is 0:00

automatically.

again from that point.

This function is convenient when, for example, you want to set the VCR to start recording immediately without going through the whole timer setting procedure.

Notes

- · Make sure that the clock is set correctly before you activate Quick Timer Recording.
- During Quick Timer Recording, you cannot change the channel on the VIDEO TV.
- Insert a cassette. The VIDEO TV automatically turns on.
- Press INPUT SELECT so that a channel number appears.
 Press TAPE SPEED to select the recording speed, SP or EP.
- Select the desired channel number with the 0-9 buttons or CHANNEL +/-.
 If you try to select the Cable TV channel, first set CABLE to ON in SET UP menu.
- ♠ Press QUICK TIMER REC on the front panel.

QUICK TIMER REC QUICK TIMER 0:00

> QUICK TIMER 0:30

Each time you press QUICK TIMER REC, the time length advances in 30-minute increments up to 8 hours.

QUICK TIMER REC



After you select the desired time length, Quick Timer Recording starts from that point.

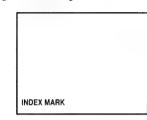


INDEX signal marks on the tape let you scan through the start of different programs or search for a specific section of tape.

Marking INDEX Signals

Automatic INDEX mark

An INDEX signal is automatically marked at the beginning of recording.

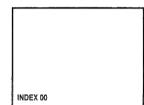


Manual INDEX mark

INDEX signals can be marked at any desired point during any recording or normal playback.

Press INDEX once. INDEX 00 appears.



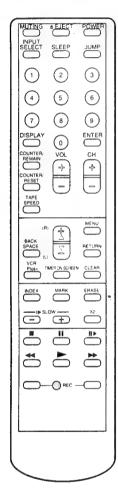


Then press MARK at the point where you want to mark INDEX signal. INDEX MARK appears on the screen.



Notes

- Leave an interval of more than 2 minutes between INDEX signals when marking them one
 after the other so that the VCR can detect them correctly.
- While an INDEX signal is being marked during playback, the recorded sound will not be heard, but it will not be erased.
- You cannot mark an INDEX signal in the following cases:
 - On a tape without safety tab.
 - On an unrecorded portion of a tape.
 - Immediately before a point on the tape where the tape speed changes.



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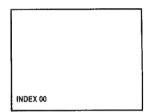
Playing Back From the INDEX Point

The beginning of each program can be found and played back by using the INDEX signals.

Insert a cassette with INDEX signals.

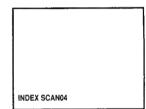
Press INDEX once during playback. INDEX 00 appears on the screen.





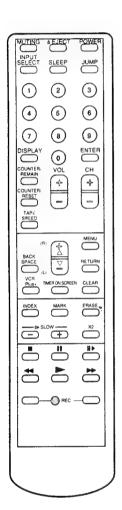
Press either FAST FORWARD → or REWIND/REVIEW ← to start the INDEX scan. The tape rewinds or rapidly advances to the next marked signal.

The tape plays back for about 5 seconds, then rewinds or rapidly advances to the next INDEX signal. Each time INDEX signal is detected and playback begins, the INDEX scan number (INDEX SCAN 04) appears.



When the desired program is detected, press PLAY .

Playback starts from that point.



RM-Y138/W

ney I miletion

Locating the Desired Program (INDEX Search)

A particular program can be located and played back by designating how many INDEX signals ahead or behind that program is from the current position.

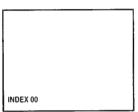
1

Insert a cassette with INDEX signals.

2

Press INDEX.
INDEX 00 appears.

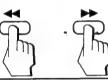




Using the 0-9 buttons, enter the number of INDEX signals you want to skip. For example, if the tape is at INDEX 02 and you want to locate INDEX 05, press 0 3.

You can select maximum location by INDEX 99.

4





Erasing INDEX Signals

You can erase unnecessary INDEX signals.

1

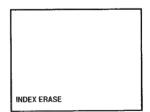
Press INDEX during STOP mode. INDEX 00 appears.

2

Press ERASE.

INDEX ERASE appears on the screen.





Press either FAST FORWARD► or REWIND/REVIEW ← .

The first subsequent INDEX signal is erased and the tape begins playback.

Note

While INDEX signal is being erased, the recorded sound is temporarily muted.

Appendix **Specification**

Television system	American TV standard	Power consumption	KV-13VM30/31: 86W KV-20VM30: 108W
Recording system	Rotary four-head helical		
	scan system	Dimensions (WHD)	KV-13VM30/31: 15" X 16" X 15 ^{1/5} "
Channel coverage	VHF: 2 - 13 UHF: 14-69 Cable TV: 1-125		382 X 407 X 411mm KV-20VM30: 20 ^{1/2*} X 20 ^{1/2*} X 18 ^{3/5} 522 X 522X 474mm
Picture tube	KV-13VM30/31:		022 / 022/ 4/ 4/ HIII
	Microblack™Trinitron* tube 13-inch picture measured diagonally 14-inch picture tube measured diagonally KV-20VM30:	Weight	KV-13VM30/31: Net: 13.76 kg(30.3 lbs) Gross: 15.62 kg(34.4 lbs) KV-20VM30: Net: 26.1kg(58lbs) Gross: 30kg(66.1lbs)
	Trinitron® Tube 20-inch picture measured diagonally	Tape Speed	SP: 33.35 mm/sec. EP: 11.12 mm/sec.
	21-inch picture tube measured diagonally	Maximum recording/playback time	8 hours in EP mode
Antenna	75-ohm external antenna		
	terminal for VHF/UHF	Fast-forward and rewind time	Approx. 4 min. 30 sec. (T-120 tape)
LINE IN	VIDEO IN (phono jack) 2 each (Front/Rear) Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative AUDIO IN (phono jack) 2 each (Front/Rear) Input level: 400 mVrms Input impedance: 47 kilohms	Supplied accessories	Remote commander RM-Y138: KV-20VM30 KV-13VM30 RM-Y138W: KV-13VM31 1 size AA (R6) battery (1) Antenna Adapter (1)

Power requirements

120V AC, 60 Hz

Note

Design and specifications are subject to change without notice.

Troubleshooting



If you have a problem with the VIDEO TV, first check the power cord connection, then go through the following list. Should the difficulty persist, unplug the unit, and contact your Sony dealer or local authorised Sony service facility.

VIDEO TV RECEPTION

Symptoms	Suggestions
No picture or sound	Make sure the unit is plugged into a working AC outlet.
waterday,	Make sure it is not set to LINE IN mode.
	Check that POWER is set to ON.
	Check the antenna wires, connections and direction.
Picture OK, sound poor	Adjust the sound.
Sound OK, no picture	Try another channel.
	Adjust the picture.
Picture weak or blurred	Check the antenna wires, connections and direction.
	Adjust picture control.
Picture rolls vertically	Check the antenna wires, connections and direction.
Ghosts (multiple images)	Check the antenna wires, connections and direction.
* *	Install a directional antenna.
Wrong color or no color	Adjust color and hue controls.
No response to button pressing	Press the buttons carefully again. Unplug the set, then plug it in and try again.
No response to remote control	• Check the polarity (+and -) of the batteries.
	Replace the batteries.

Troubleshooting

VCR OPERATION

Symptoms	Suggestions
Cannot load video cassettes	 Insert the cassette with the window side up and the safety tab facing you. Check if a video tape is already in the VCR.
No operation when buttons are pressed	Cancel the Quick Timer Recording.
Auto play function doesn't work or TV programs can't be recorded	 Make sure that the receiving channel of the set is properly tuned. Make sure that the safety tab on the video cassette tape is still intact. Check antenna wires, connections and direction.
Timer recording can't be performed	 Make sure the recording start/stop time is correct. Reconnect the power plug to an AC outlet, and reset the program recordings.
There is no picture in playback, or the playback picture is noisy or contains streaks	 Check that power is set to ON. Check that the video cassette tape has a recorded program. Check the tracking control (for noise streaks)
Video cassette tape was inserted incorrectly	Wait a few seconds. The video cassette tape should eject itself.



Contents

Preface

This section tells you about special features, safety information, and preparatory information for using this manual

Chapter 1: Setting UP

This section shows you the steps necessary for installing and presetting your VIDEO TV, and how to connect optional video and audio equipment.

Chapter 2: Using Basic VIDEO TV Features

This section gives you basic information about operating and adjusting your VIDEO TV

Chapter 3: Using Advanced TV Features

This section shows you the steps for other useful TV features with using the On-Screen Menus.

Chapter 4: Using Basic VCR Features

This section gives you basic information about operating and adjusting your VCR.

Chapter 5: Using advanced VCR Features

This section shows you the steps for other useful VCR features with using the On-Screen Menus.

Appendix

This section gives you specifications and troubleshooting information.

 For a detailed table of contents, see p. 3.

Trinitron[®] Color Video TV

Operating Instructions

Before operating your VIDEO TV, please read this manual thoroughly and retain it for future reference.

KV-13VM30/31 KV-20VM30

VHS

VCRPlust

Owner's Record

The model and serial numbers are located at the rear of the VIDEO TV. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No.	Serial No.	
	•	



To prevent fire or shock hazard, do not expose the unit to rain or moisture.



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE
PERSONNEI



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

When using TV games, computers, and similar products with your VIDEO TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Note to CATV system installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Use of this VIDEO TV receiver for other private viewing of programs broadcast on VHF or UHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

Do not use this VIDEO TV if moisture has condensed, such as on its CRT, otherwise it may cause malfunction. In this case, leave the VIDEO TV unused until it gets dry.

Precautions

Safety

- Operate the VIDEO TV only on 120V AC.
- One blade of the plug is wider than the other for safety purposes and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the VIDEO TV and have it checked by qualified personnel before operating it any further.
- Unplug the VIDEO TV from the wall outlet if you are not to going to use it for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installing

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the VIDEO TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the VIDEO TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

Repacking

Keep the original carton and packing materials to use for safe transport of your VIDEO TV in the future.

If you have any questions or problems concerning your VIDEO TV, please contact your nearest Sony dealer.

This VIDEO TV receiver provides display of television closed captioning in accordance with 15.119 of the FCC rules.

Information

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

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Introducing the Sony Trinitron® Color VIDEO TV

About the manual

- We highly recommend that you read this manual before using your VIDEO TV combined Television and VCR.
 Keep the manual handy for future reference.
- The instruction in this manual are for the KV-20VM30 and KV-13VM30/31. The KV-20VM30 is used for illustration purposes.

Features

With the following features, you can:

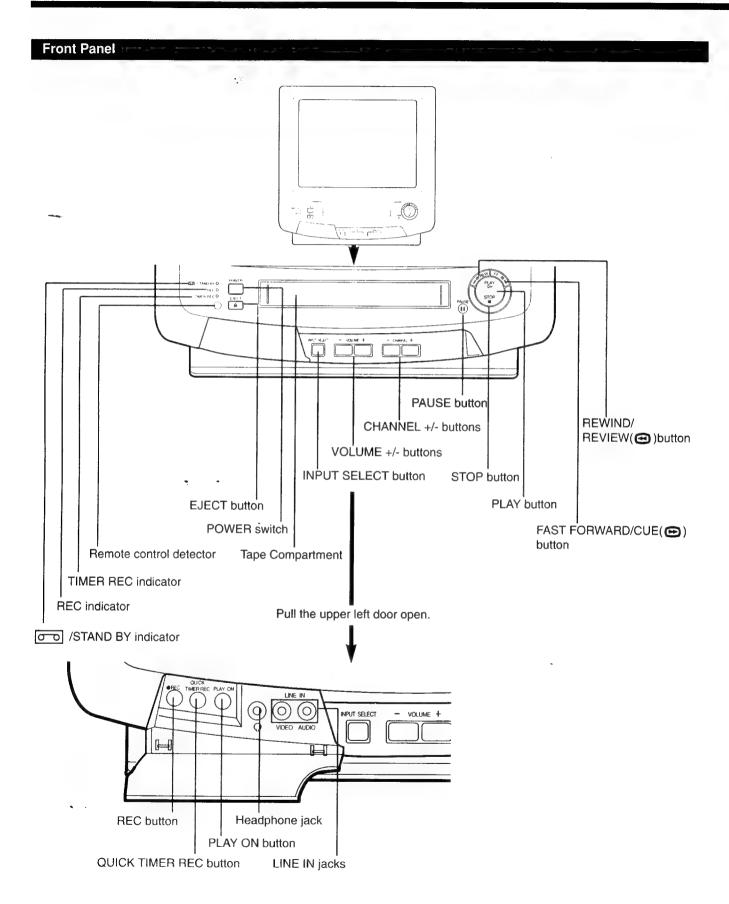
- Watch up to 125 cable channels for a total of 181 possible off-air and cable channels with the multi-band VHF/UHIF/CATV tuner.
- Enjoy 4 head high quality picture and variable speed playback.
- Set and adjusts the time automatically by using Auto Clock™ set features.
- Quickly and easily preset the VCR to record programs by using VCR plus+* system.
- Call up on-screen menus to set timer-activated functions (Auto clock set, Manual clock set, On/Off Timer, Channel Block set), Cable on/off, AUTO Program, CH Erase/Add, Tape remain, Auto Repeat On/Off by using the SET UP feature.
- View the closed caption and the text by using Caption Vision.
- Enjoy automatic Playback by automatically playing, a cassette tape that has had its erase-protection tab removed.
- Record programs without using the program recording timer while you are away, by using the QUICK TIMER.
- Monitor quickly other Video/Audio sources (such as a camcorder, a video game, etc), by using the PLAY ON™.
 - * VCR plus+ and plus code are trademarks of Gemstar Development Corporation. VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

With the supplied Remote Commander, you can:

- Use the CHANNEL BLOCK feature, with which picture is blocked and sound is muted, to prevent children from watching unsuitable programs.
- Switch quickly between two channels by using JUMP.
- Set the TV to automatically shut off after 30, 60, and 90 minutes by using the SLEEP timer.
- Program the VCR to make up easily to six unattended recordings within a 1-month period, including daily and weekly recordings, by using TIMER ON-SCREEN.
- View a slow motion during playing back, by pressing
 -SLOW+.
- View a picture frame by frame during PAUSE/STILL picture, by pressing FRAME.
- Playback pictures in twice speeds by pressing X2.
- View a single frame by using PAUSE.
- Make sections of tape so you can quickly and easily return to the section you want to watch, by using INDEX and MARK.

Locating the Controls

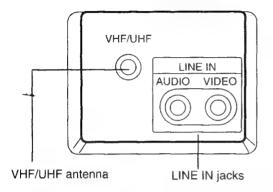




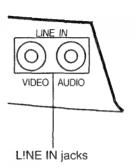
Locating the Controls

Rear and Front Panel

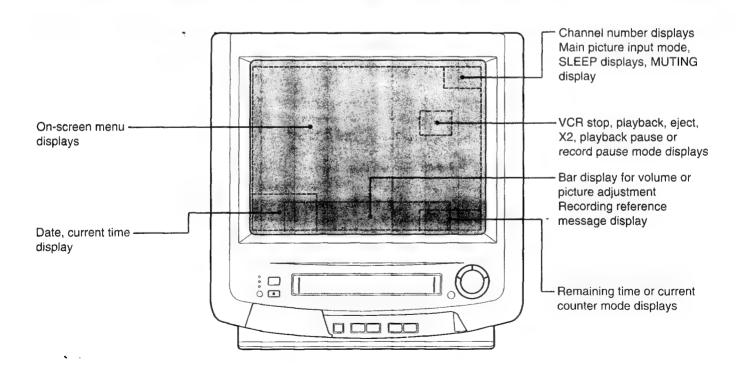
• Rear Panel



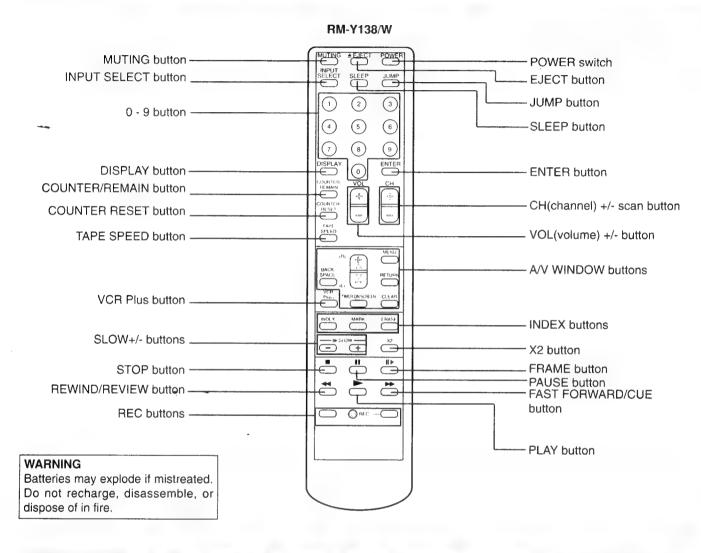
Front Door Inside

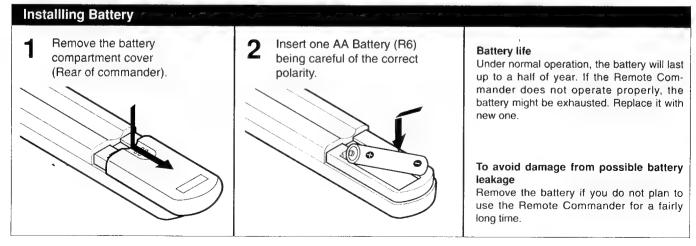


Screen Displays



Remote Commander





Connecting TV Antenna/Cable

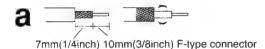
Although you can use either an indoor or outdoor antenna with the VIDEO TV, an outdoor antenna will provide you with better picture quality. You can receive cable TV by connecting a cable supplied by your local cable company.

Connecting VHF, UHF or VHF/UHF Combination Antenna, or CATV Cable

75-ohm coaxial cable (round)

Check your antenna cable type and prepare the end of the cable using the F-type connector.

Attach an F-type connector (not supplied).





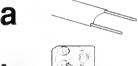




300-ohm twin-lead cable (flat)

Check your antenna cable type and prepare the end of the cable using the 300-ohm twin-lead cable.

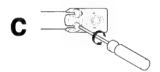
Attach the supplied antenna connector.



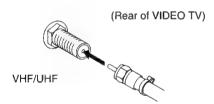
Loosen both screws on the connector with screwdriver.



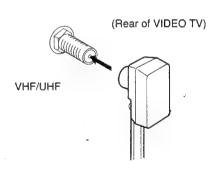
Attach the cable and tighten both screws with a screwdriver.



Plug the connector into the VHF/UHF terminal at the rear of the VIDEO TV.



2 Plug the connector into the VHF/UHF terminal at the rear of the VIDEO TV.



* Most combination antennas are equipped with a signal splitter.

Remove the splitter and attach the appropriate connector.

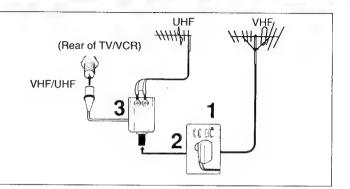
Connecting Both VHF and UHF Antennas

Use the EAC-66 U/V mixer (not supplied).

Prepare the VHF antenna end using the appropriate connector (p. 8).

Onnect the cables to the mixer.

Attach the mixer to the VHF/UHF terminal.



When the U/V mixer is used

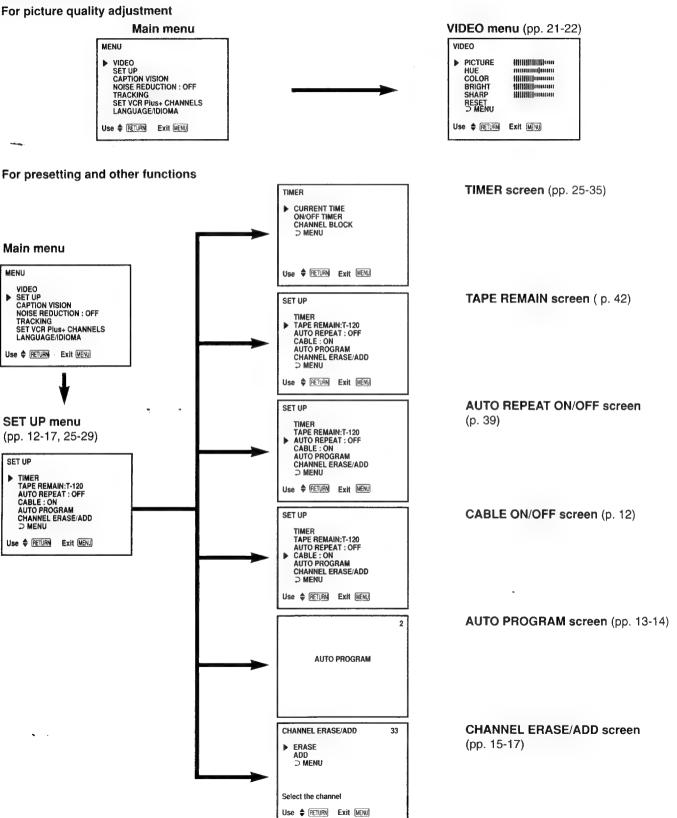
Snow and noise may appear in the pictures when viewing cable TV channels over 37 (W + 1).

Note

For better picture quality, we would recommend you to connect an outdoor antenna.

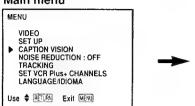
Using the On-Screen Menus

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.



For closed caption setting

Main menu

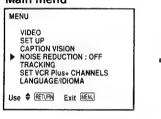


CAPTION VISION menu

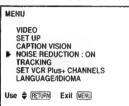


CAPTION VISION screen (p. 23)

For noise reduction function Main menu



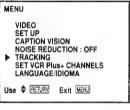
NOISE REDUCTION menu



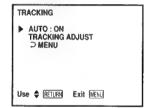
NOISE REDUCTION screen (p. 24)

For tracking adjustment function

Main menu



TRACKING menu



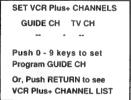
TRACKING screen (p. 41)

For VCR Plus+ CHANNELS setting

Main menu

MENU VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA Use \$ RETURN Exit MENU

SET VCR Plus+ CHANNELS menu



SET VCR Plus+ CHANNELS screen (p. 44-46)

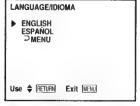
For on screen language selection function

Main menu

MENU VIDEO VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA Use \$ RETURN Exit MENU



LANGUAGE SELECTION menu



To select the LANGUAGE/IDIOMA

Press △ + or ▽ - to select the desired language mode. And, press RETURN.

Navigating Through the Menus

Use the buttons on the remote commander.

To display the main menu Press MENU.

Commander.

To return to the normal screen Press MENU on the Remote

To return to the previous menu

Press \triangle + or ∇ - to select MENU. Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

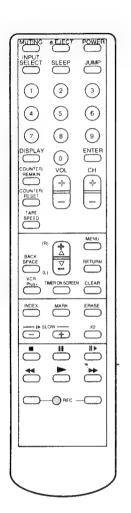
Note

The menus disappear automatically if you do not press a button within 60 seconds.

Turning the Cable Mode On or Off

All of the controls are on the Remote Commander.

If you have cable connected to your VIDEO TV (p. 8-9) follow the steps below to turn the cable connection on or off. CABLE is preset to OFF when you use your VIDEO TV for the first time. Turn CABLE to OFF to preset or watch VHF or UHF channels.



Press MENU.

The Main Menu appears

Press \triangle + or ∇ - to select SET UP, in main menu.



Press RETURN.

The SET UP menu appears.



MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT : OFF
CABLE : ON
AUTO PROGRAM
CHANNEL ERASE/ADD
MENU

Use \$ RETURN Exit MENU

Press \triangle + or ∇ - to select CABLE.



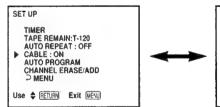
SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM CHANNEL ERASE/ADD

Use \$ RETURN Exit MENU

Press RETURN.

Press \triangle + or ∇ - to select ON or OFF alternately.



TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: OFF
AUTO PROGRAM
CHANNEL ERASE/ADD
MENU

Use \$ RETURN Exit MENU

Press RETURN. The setting is completed.



To return to the normal screen Press MENU.

RM-Y138/W

Note

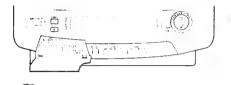
If the VIDEO TV is in LINE mode, you cannot select CABLE. Repeatedly press INPUT SELECT to change to TV mode.

Presetting TV Channels



Once you have preset the channels on your VIDEO TV, you will be able to use the channel +/- buttons on the VIDEO TV or the Remote commander to scan the channel you selected.

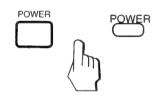
Presetting TV Channels Automatically

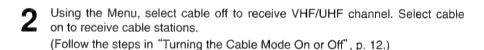




Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

Press POWER on the VIDEO TV or the Remote Commander to turn the VIDEO TV on.





Press MENU.
The main menu appears.



MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

4 Press △+ or ▽- to select SET UP.

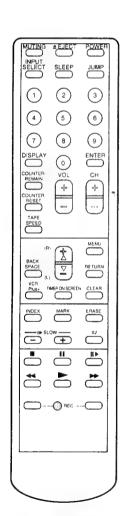


MENU

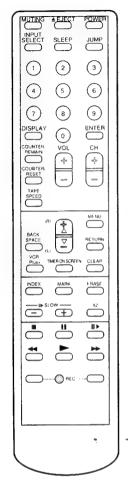
VIDEO

SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU



RM-Y138/W



RM-Y138/W

Receivable channels for this TV

VHF: 2-13 UHF: 14-69 Cable: 1-125

To select TV channels without presetting Press 0-9.

To return to the normal screen Press MENU.

To erase unnecessary channels, or to add channels that could not be preset automatically because their signal was too weak, follow the steps in "Erasing Unnecessary Channels CHANNEL ERASE" and "Presetting Only Desired Channels-CHANNEL ADD" (pp. 15-17).

Press RETURN.

The SET UP menu appears.



SET UP

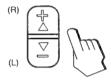
► TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE/ADD
DMENU

Use \$ RETURN Exit MENU

Note

If the VIDEO TV is in LINE mode, you cannot select AUTO PROGRAM. Press INPUT SELECT to change to TV mode.

5 Press △+ or ▽- to select AUTO PROGRAM.



Press RETURN.



SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE/ADD
DMENU

Use \$ RETURN Exit MENU

AUTO PROGRAM

"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the TV's memory.

When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

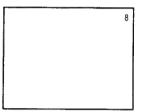


Erasing Unnecessary Channels - CHANNEL ERASE

Use this feature to erase unnecessary TV channels, so that when you press CH+/-, the channel(s) are skipped.

Press the CH +/- button to select the channel you want to erase. For example, to erase channel 8, press CH + or - until 8 appears.





Press MENU.
The main menu appears.

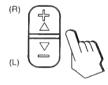


MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit (MENU)

Press △+ or ▽- to select SET UP.



Press RETURN.
The SET UP menu appears.



MENU

VIDEO

SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

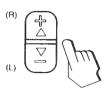
Use \$ RETURN Exit MENU

SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE/ADD
DMENU

Use \$ RETURN EXIT WEYN

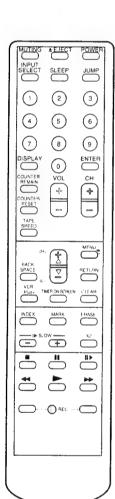
⚠ Press \triangle + or ∇ - to select CHANNEL ERASE/ADD.



SET UP

TIMER
TAPE REMAIN:T-120
AUTO REPEAT: OFF
CABLE: ON
AUTO PROGRAM
CHANNEL ERASE ADD
DMENU

Use \$ RETURN EXIT WENT

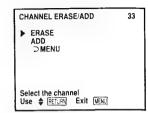


RM-Y138/W

Press RETURN.

The CHANNEL ERASE/ADD screen appears, and the cursor points to ERASE.





Note

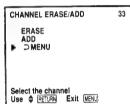
If the VIDEO TV is in LINE mode, you cannot select CHANNEL ERASE/ADD. Press INPUT SELECT to change to TV mode.

5

Press RETURN.

A "-" sign appears in front of the channel number display showing that the channel is erased from the channel scan memory.







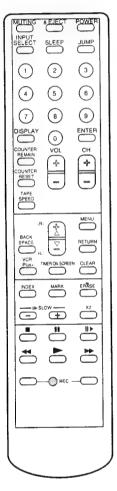
Press MENU.



The next time you press the CH +/- buttons, channel 8 will be skipped.

To erase other channels

Repeat steps 1-6.



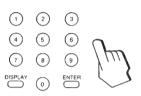
RM-Y138/W

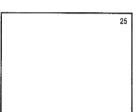
To return to the normal screen Press MENU.

Presetting Only Desired Channels - CHANNEL ADD

Use this feature to add channels one at a time to the channel scan memory.

Press 0-9 to select the channel you want to add. For example, to add channel 25, Press 2, 5 and ENTER.





2 - 4 (Follow steps 2-4 in "Erasing Unnecessary Channels-CHANNEL ERASE," pp. 15-16)

Note

69

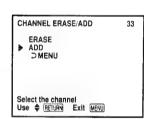
ENTER

+

If the TV is in LINE mode, you cannot select CHANNEL ERASE/ADD. Press INPUT SELECT to change to TV mode.

5 Press \triangle + or ∇ - to select ADD.

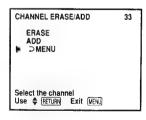




Press RETURN.

A "+" sign appears in front of the channel number display showing that the channel is added to the channel scan memory.





To return to the normal screen Press MENU.

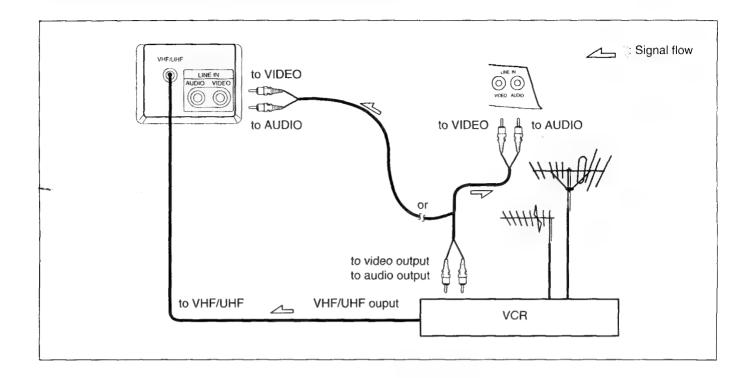
RM-Y138/W

6 Press MENU.

To add other channels

Repeat steps 1-6.

Connecting Other Equipment



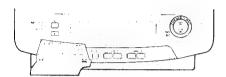
- Remove the antenna cable from the VIDEO TV Antenna terminal. Connect the antenna cable to the antenna terminal of the other Video/Audio source (ex. Video recorder). Then connect a coaxial cable from the VHF output terminal back to the antenna terminal of the VIDEO TV.
- To use your VIDEO TV to monitor an audio/video source (such as another VCR, a Camcorder or a Laser Disc Player), connect the audio/video source output jacks to the AUDIO/VIDEO IN jacks on the rear panel or front door of the VIDEO TV.

Then select LINE IN using the PLAY ON on the front door.

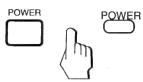
Notes |

- Press PLAY ON on the front door of the VIDEO TV so that "LINE" appears on the screen.
- To return to TV mode, repeatedly press INPUT SELECT on the VIDEO TV or on the Remote Commander so that a channel number appears on the screen.
- For operating instructions, refer to the instruction manual furnished with the VCR.
- If the picture or sound is affected, move the VCR away from the VIDEO TV.

Watching TV Programs



Press POWER on the VIDEO TV or the Remote Commander to turn the TV on.



2 Turn the cable mode on or off to select the type of channel you want to watch, VHF/UHF or cable TV.

(Follow the steps in "Turning the Cable Mode On or Off," p.12.)

If "LINE" is displayed on the screen, press INPUT SELECT on the Remote Commander so that the channel number appears.

3 Select a channel in one of the following two ways:

To scan the preset channels* in numerical sequence





For more information on presetting channels, see pp. 13-17.

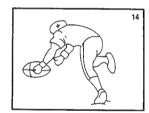
To select a channel directly

Press 0-9.

For example, to select channel 14, press 1 and 4.

You don't have to press ENTER after having pressed the desired channel number. The channel is directly selected if you do not press ENTER after 3 seconds.

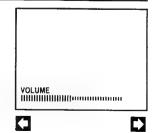
But press ENTER to select a channel quickly.



4

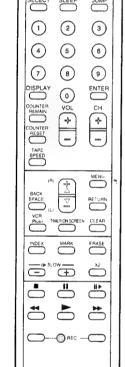
Press VOL +/- to adjust the volume.

Press VOL + to increase the volume. Press VOL - to decrease the volume.



To turn off the TV

Press POWER on the TV or the Remote Commander again.



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Using Convenient Features

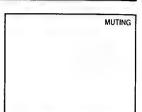
Muting the Sound - MUTING

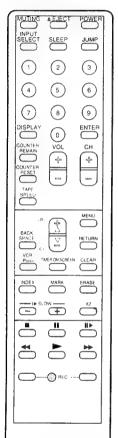
Press MUTING.

The display "MUTING" will appear on the screen.

To restore the sound

Press MUTING again.





RM-Y138/W

Keeping the Displays On-Screen - DISPLAY

If AUTO CLOCK has been set when you turn the VIDEO TV on, the display will appear for about 3 seconds as shown right.

To display the channel

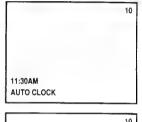
Press DISPLAY.

All the existing displays appear: channel number, date, time, VCR operating mode and tape counter.

To cancel the display

Press DISPLAY again.

The display will disappear.



12:00AM 3/11FRI

Setting the Sleep Timer - SLEEP

The sleep timer turns off the TV automatically after the amount of time you select.

Press SLEEP.

Each time you press SLEEP, the time increments 30, 60, 90 and OFF mode appear in sequence.



SLEEP (OFF
 SLEEP	30
SLEEP	60
SLEEP	90

The SLEEP display appears about one minute before the TV turns off.

To cancel the setting

Press SLEEP untill OFF mode appears.

The "SLEEP OFF" display appears for about three seconds. OR

Turn the TV off.

The sleep timer setting is cancelled.

Switching Quickly Between Two Channels - JUMP

Press JUMP once to recall the channel you were watching previously. Press JUMP again to switch back. Use this feature to keep track of two programs alternately.



You can adjust the picture for each input mode (TV mode, LINE) by pressing INPUT SELECT to select the input mode before making the adjustments.

These adjustments are retained in memory even when you turn off the TV until you change the adjustments again.

Press MENU.

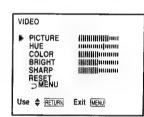
The main menu appears, and the cursor points to VIDEO.



VIDEO SET UP CAPTION VISION NOISE REDUCTION: OFF TRACKING SET VCR Plus+ CHANNELS LANGUAGE/IDIOMA Use \$ RETURN Exit MENU

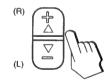
Press RETURN. The VIDEO menu appears.

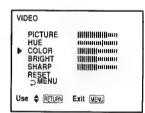




Adjusting Picture Quality Using Convenient Features

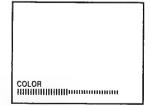
Press \triangle + or ∇ - to select the item you want to adjust. For example, to adjust the picture color, select COLOR.

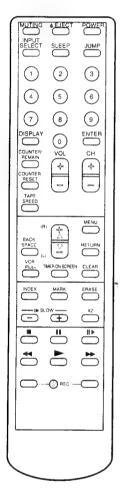




Press RETURN. The adjustment bar appears.







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4

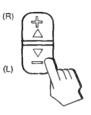
Press \triangle + or ∇ - to make the adjustment.



Increase color intensity



▲ Decrease color intensity



Press RETURN.

The new setting appears in the VIDEO menu.



VIDEO

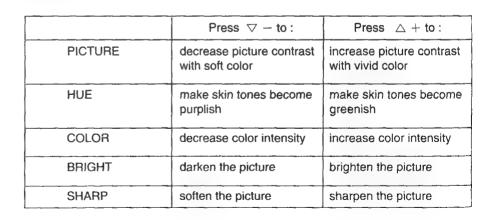
PICTURE
HUE
COLOR
BRIGHT
SHARP
RESET
D MENU

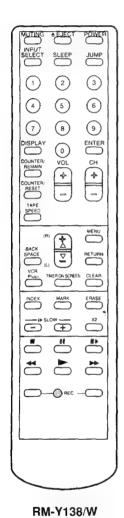
(HOMM) bernon HTRERM berners HTRERM berner HTRERM berner

Use \$ RETURN Exit MENU

To adjust other items

Repeat steps 3-4.





To return to the normal screen Press MENU.

To restore the factory (mid-level) setting Go to the VIDEO menu and select RESET by pressing $\triangle +$ or $\nabla -$. Then press RETURN. All the settings except for PICTURE will be restored to mid-level settings.

Using Closed Caption

Press MENU.
The main menu appears.



MENU

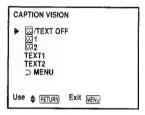
I VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR PIUS+ CHANNELS
LANGUAGE/IDIOMA

USe ♠ RETURN EXIT (MENU)

Press △+ or ▽- to select CAPTION VISION.
Then press RETURN.
The CAPTION VISION screen appears.

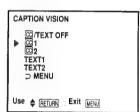




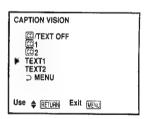


Press \triangle + or ∇ - to select closed caption mode.

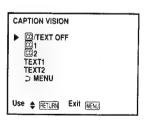
Select CC1 or CC2 to view Captions. A Caption is a printed version of the dialogue or sound effects of a program. (The mode should be set to CC1 for most programs.)



Select TEXT1 or TEXT2 to view Text. Text is information that is presented using the full to full television screen. It is usually not related to the program.



Select CC/TEXT OFF if you do not want to use the CAPTION VISION mode.

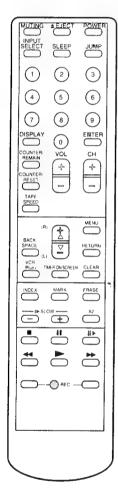


Press RETURN.

The Setting is completed.



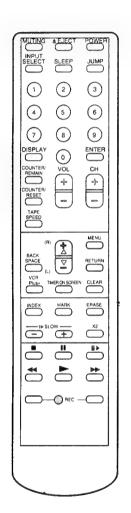
Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs can also cause errors in Closed Caption.



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Using Noise Reduction Function

You can reduce the picture noise on the screen in VCR playback mode.



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Press MENU.

The main menu appears, and the cursor points to VIDEO.



► VIDEO SET UP CAPTION VISION NOISE REDUCTION : OFF TRACKING SET VCR Plus+ CHANNELS LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

Press \triangle + or ∇ - to select NOISE REDUCTION.



MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit MENU

Press RETURN, then \triangle + or ∇ - to select ON.



MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: ON
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

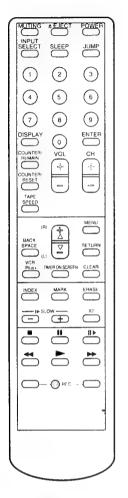
Use 💠 RETURN Exit MENU

Press RETURN. The picture noise is reduced.



Using the Timer-Activated Functions





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Notes

- The clock cannot be set automatically if you don't receive a channel that carries a time signal in your area. If so, set the clock manually (pp28-29).
- If there are only a few channels in your area that carry time signals, setting the clock automatically may take up to about 30 minutes. If nothing happens even after you wait about 30 minutes, set the clock manually.
- The menu disappears automatically if you don't proceed for more than one minute.

Setting the Clock - AUTO CLOCK SET

Before you use the timer feature for recording program, you need to set the current time and date.

Some TV and cable channels have started to transmit time signals with their broadcasts. Your VIDEO TV can pick up this time signal to automatically set the clock. After completing the steps below, when you turn off the VIDEO TV, it will automatically search for a channel that carries a time signal and set the clock. The Auto Clock Set feature only works if a channel in your area is broadcasting a time signal. If broadcasters in your area are not yet sending time signals, set the time manually (PP28 - 29). Clock setting is necessarry also to use ON/OFF TIMER, CHANNEL BLOCK, Timer

Clock setting is necessarry also to use ON/OFF TIMER, CHANNEL BLOCK, Tir Recording and VCR Plus Recording.

Press MENU.
The main menu appears.



MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR PIUS+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN EXIT UENT

In main menu, press △+ or ▽- to select SET UP. Then press RETURN. The SET UP screen appears.





SET UP

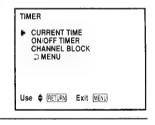
TIMER
TAPE REMAIN:T-120
AUTO REPEAT : OFF
CABLE : OFF
AUTO PROGRAM
CHANNEL ERASE/ADD
DMENU

Use \$ RETURN Exit WENU

Press △+ or ▽- to select TIMER.
Press RETURN.
The TIMER screen appears.







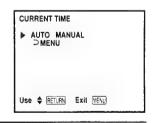
Press △+ or ▽- to select CURRENT TIME.

Press RETURN.

The CURRENT TIME screen appears.





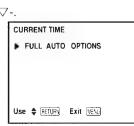


Press RETURN then select AUTO by using △+ or ▽Press RETURN again.

The Auto Clock Set screen appears.





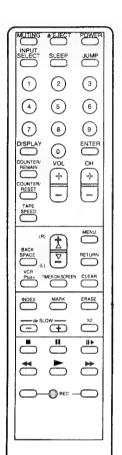


Press RETURN then select FULL AUTO by using △+ or ▽-.
Press RETURN again.





When clock data service is available, the clock is set automatically with leaving the TV off



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To activate the Auto Clock Set function, turn the TV off.

The VIDEO TV automatically sets the clock.

The VIDEO TV automatically searches for a channel that carries a time signal and sets your time zone and daylight saving time (if applicable). If your clock sets, but displays the wrong time zone or daylight saving time, you can adjust these settings by following the steps below.

If the clock is not activated

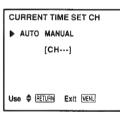
Follow steps 1 to 5 above.

Press RETURN then select OPTIONS by using △+ or ▽-.
Press RETURN again.

The CURRENT TIME SET CH screen appears.







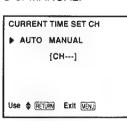
Press RETURN, then press △+ or ▽- to select AUTO or MANUAL.

If you select AUTO:

The VIDEO TV automatically searches for a channel that carries a time signal.

If you select MANUAL:

Set a channel that carries a time signal using the number buttons. Use this option if you know that channel. Most PBS member stations broadcast a time signal. For the fastest response, set the VIDEO TV to your local PBS station.



CURRENT TIME SET CH

AUTO MANUAL

[CH---]
Push 0-9 keys to set
CURRENT TIME for clock
Then push RETURN

Use \$ RETURN Exit MENU



Press RETURN.

The YOUR TIME ZONE AND DAYLIGHT SAVING TIME screen appears.



YOUR TIME ZONE AND DAYLIGHT SAVING TIME AUTO MANUAL

Use \$ RETURN Exit MENU

Press RETURN, then press △+ or ▽- to select AUTO or MANUAL.

If you select AUTO:

The VIDEO TV automatically sets your time zone and daylight saving time (if applicable).

YOUR TIME ZONE ATLANTIC EASTERN CENTRAL MOUNTAIN PACIFIC Use \$ RETURN Exit MENU

If you select MANUAL:

- 1. Press RETURN, then set the time zone of your area using \triangle + or ∇ -.
- 2. Press RETURN, then select STANDARD TIME or DAYLIGHT SAVING TIME using \triangle + or ∇ -.

DAYLIGHT SAVING TIME

STANDARD TIME DAYLIGHT SAVING TIME

Use \$ RETURN Exit MENU

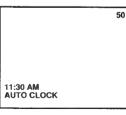
Press RETURN.

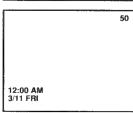


To activate the Auto Clock Set function, turn the TV off.

Notes ·

- If AUTO CLOCK has been set when you turn the VIDEO TV on, the display will appear as shown right. When the display does not appear as shown right even though AUTO CLOCK has been set: using the Manual Clock Set stops the automatic channel search when your set is power off. If the Auto Clock Set feature is not in use, the channel search is not performed when your set is power off.
- · If you set the clock manually, the display will appear as shown right.





Notes

- Select STANDARD, if the DAYLIGHT SAVING TIME is not performed in your
- When you connect another VCR to the VHF/UHF antenna terminal, if VCR's tape is transmitted wrong time signal, your VIDEO TV automatically sets the clock by the time signal of the tape.

Not to set the clock by the time signal of VCR:

Turn your VIDEO TV off after having tunned VCR off or Set the clock manually on your VIDEO TV.

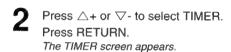
9 ENTER

Setting the Clock - MANUAL CLOCK SET

EXAMPLE:

Set the time to 11:30AM, Sunday on the 25th of February, 1996.

In main menu, press △+ or ▽- to select SET UP.
Then press RETURN.
The SET UP screen appears.



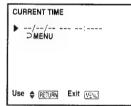
3 Press △+ or ▽- to select CURRENT TIME. Press RETURN.

The CURRENT TIME screen appears.



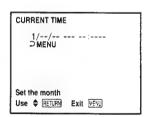






Press RETURN.
""Set the month" appears on the screen.
The month will appear in red.





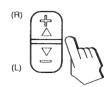
To change or correct the setting before completing it

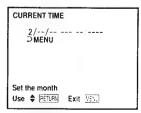
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Press BACK SPACE to return to the item to be erased.

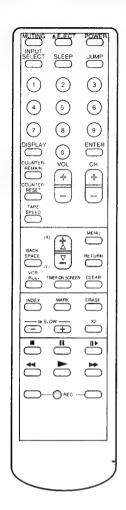
Press △+ or ▽- to set the month.

Each time you press △+ or ▽-, the month changes in sequence.









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To display the time Press DISPLAY.

To return to the normal screen Press MENU.

Notes

 The internal clock of this VIDEO TV operates on a 12-hour cycle.

12:00 AM stands for midnight.12:00 PM stands for noon.

- All the settings including CLOCK will be erased if you unplug the VIDEO TV or a power failure occurs. Reset the current time by following steps 1-11.
- You cannot change the clock during Timer Recording. To change the clock, stop the recording.

Press RETURN.

"Set the day" appears on the screen.



CURRENT TIME

2/1/-- --- --
MENU

Set the day
Use \$ RETURN Exit MENU

Press △+ or ▽- to set the day.

Each time you press △+ or ▽-, the day changes consecutively.

Press RETURN.

"Set the year" appears on the screen.







Press △+ or ▽- to set the year.

Each time you press △+ or ▽-, the year changes in sequence and the day of the week automatically changes.

Press RETURN.

"Set the time" appears on the screen.



1 Press \triangle + or ∇ - to set the hour.

Each time you press △+ or ▽-, the hour changes in sequence starting with "12:00AM."

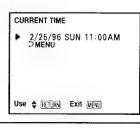
Press RETURN.



Press △+ or ▽- to set the minute.
Each time you press △+ or ▽-, the minute changes in sequence.

Press RETURN.

The setting is completed and the clock starts.



Setting the ON/OFF TIMER

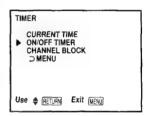
With this function you can set your favorite program to appear on the screen at the time that you set.

EXAMPLE: Set the timer to turn on the VIDEO TV every Monday through Friday at 3:15 PM for 2 hours, on channel 21.

In main menu, press △+ or ▽- to select SET UP. Then press RETURN.

The SET UP screen appears.

Press △+ or ▽- to select TIMER.
Press RETURN.
The TIMER screen appears.



Press △+ or ▽- to select ON/OFF TIMER.

Press RETURN.

The ON/OFF TIMER screen appears.

RETURN



ON/OFF TIMER

• EVERY SUN-SAT
12:00AM -h CH---

Use ♦ RETURN Exit MENU

Note

If the ON/OFF TIMER display does not function, the current time has not been set and you cannot select ON/OFF TIMER. To set the clock, see "Setting the Clock-AUTO CLOCK SET/MANUAL CLOCK SET," PP 25-29.

Press RETURN.

"Set the day" appears on the screen.

"EVERY SUN-SAT" will be changed in red.



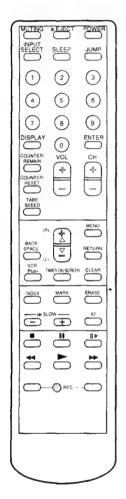
ON/OFF TIMER

EVERY SUN-SAT

12:00AM -h CH--
MENU

Set the day

Use \$ RETURN Exit WEND



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Fress △+ or ▽- to set the day.

Each time you press △+ or ▽-, the days of the week change as shown in Fig. 1 (page 32)

Then press RETURN.

"Set the time" appears on the screen.



POWER

JUMP

(3)

6

(9)

ENTER

+

ERASE

HÞ.

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SELEC

7

SLEEP





Press △+ or ▽- to set the hour that you want the TIMER to start. Each time you press △+ or ▽-, the hour changes in sequence.

Then press RETURN.







Press △+ or ▽- to set the minutes.

Each time you press △+ or ▽-, the minutes change in sequence.

Then press RETURN.

"Set the duration" appears on the screen.







Press △+ or ▽- to set the duration of time.

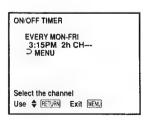
Each time you press △+ or ▽-, the duration changes from "1" to "9" in sequence.

Then press RETURN.

"Select the channel" appears on the screen.







Using the Timer-Activated Functions

9 Press \triangle + or ∇ - to set the channel that you want the TV to tune in. Each time you press \triangle + or ∇ -, the channel number changes in sequence.



ON/OFF TIMER

EVERY MON-FRI
3:15PM 2h CH21

> MENU

Select the channel
Use \$ RETURN Exit WENU

Press RETURN.

The setting is completed.





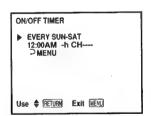
Cancelling the ON/OFF TIMER

Select the ON/OFF TIMER screen (Refer to pp. 30 - 32). Press RETURN.

"EVERY SUN-SAT" will appear in red.

Press BACK SPACE to erase the ON/OFF TIMER.



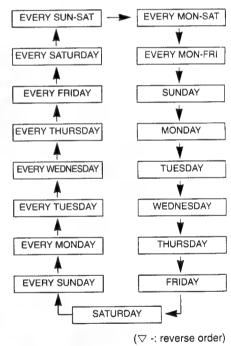


Notes

- One minute before the timer goes off, the "TV will turn off" will appear on the screen.
- If you have not set the clock correctly, the ON/OFF TIMER will not operate at the proper time. To set the clock, see "Setting the Clock-AUTO CLOCK SET/MANUAL CLOCK SET," pp 25-29.
- All the settings including ON/OFF TIMER will be erased if you unplug the VIDEO TV or a power failure occurs. Reset the TIMER by following steps 1-9.

Fig. 1 Selecting the day(s) of the week

When you press \triangle +, the days of the week appear in the following order.



To Change or Correct Setting the ON/OFF TIMER

Before completing it

Press BACK SPACE to return to the item to be changed or corrected. When it is displayed in red, set it again by using the \triangle + or ∇ -.

After completing it

Select the ON/OFF TIMER screen.

Then, press RETURN to return to the item to be changed or corrected.

When it is displayed in red, set it again by using the \triangle + or ∇ -.

Note •

To return to the normal screen Press MENU.

If "RESET CHANNEL BLOCK AND TRY AGAIN" appears on the screen when you completed the setting of the ON/OFF TIMER.

The ON/OFF TIMER setting overlaps the setting of the day, time, duration and channel of the CHANNEL BLOCK.

Change the setting of the CHANNEL BLOCK or the channel setting of the ON/OFF TIMER.



Setting the CHANNEL BLOCK F

This feature allows you to prevent children from watching unsuitable programs. Make sure the clock is set correctly. If it is not, set the clock first (pp. 25 - 29).

¶ In main menu, press \triangle + or ∇ - to select SET UP.

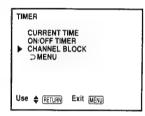
Then press RETURN.

The SET UP screen appears.

Press △+ or ▽- to select TIMER. Press RETURN. The TIMER screen appears.







Press △+ or ▽- to select CHANNEL BLOCK.
Then press RETURN.
The CHANNEL BLOCK screen appears.

"Select a program" appears on the screen.





CHANNEL BLOCK

1EVERY SUN-SAT
12:00AM -h CH--
2EVERY SUN-SAT
12:00AM -h CH--
D MENU

Select a program
Use \$ BETURN Exit MENU

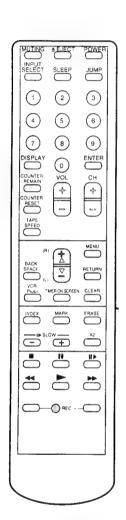
4 Press RETURN again.
"Set the day" appears on the screen.



CHANNEL BLOCK

1EVERY SUN-SAT
12:00AM -h CH--2EVERY SUN-SAT
12:00AM -h CH--⊃ MENU

Set the day
Use ♦ RETURN Exit WENU



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5 Press \triangle + or ∇ - to set the day.

Each time you press \triangle + or ∇ -, the days of the week change as shown in Fig. 1 (page 32).

Then press RETURN.

"Set the time" appears on the screen.

(R)





CHANNEL BLOCK

1EVERY MON-FRI 12:00AM -h CH---

2EVERY SUN-SAT 12:00AM -h CH---⊃MENU

Set the time
Use \$ RETURN Exit MENU

Press △+ or ▽- to set the hour that you want to start blocking time.

Each time you press △+ or ▽-, the hour changes in sequence.

Then press RETURN.





CHANNEL BLOCK

1EVERY MON-FRI 3:00PM -h CH---

2EVERY SUN-SAT 12:00PM -h CH---⊃MENU

Set the time
Use \$ RETURN Exit MENU

Press △+ or ▽- to set the minutes.

Each time you press △+ or ▽-, the minutes change in sequence.

Then press RETURN.

"Set the duration" appears on the screen.





CHANNEL BLOCK

1EVERY MON-FRI 3:15PM 1h CH---

2EVERY SUN-SAT 12:00AM -h CH---⊃MENU

Set the duration
Use \$ RETURN Exit MENU

Press \triangle + or ∇ - to set the duration of time.

Each time you press \triangle + or ∇ -, the duration changes from "1" to "12" in sequence.

Then press RETURN.

"Select the channel" appears on the screen.



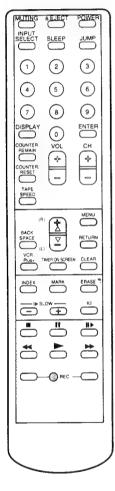


CHANNEL BLOCK

1EVERY MON-FRI 3:15PM 2h CH---

2EVERY SUN-SAT 12:00AM -h CH

Select the channel
Use \$ RETURN Exit MENU



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Press △+ or ▽- to set the channel that you want the TV to block out.

Each time you press \triangle + or ∇ -, the channel number changes in sequence.



Press RETURN.

The setting is completed.



CHANNEL BLOCK

1EVERY MON-FRI 3:15PM 2h CH21

2EVERY SUN-SAT 12:00AM -h CH-->MENU

Select the channel
Use \$ RETURN Exit MENU

CHANNEL BLOCK

► 1EVERY MON-FRI 3:15PM 2h CH21

> 2EVERY SUN-SAT 12:00AM -h CH---D MENU

Use \$ RETURN Exit MENU

10 To set another program, repeat steps 1 to 3, press \triangle + or ∇ - to select the next channel block and repeat steps 4 to 9.

Cancelling the CHANNEL BLOCK

Select the CHANNEL BLOCK screen. (Refer to page 33.)

Press RETURN.

EVERY SUN-SAT will appear in red.

Press BACK SPACE to erase the CHANNEL BLOCK.



CHANNEL BLOCK

1EVERY SUN-SAT 12:00AM -h CH---

2EVERY SUN-SAT 12:00AM -h CH--⊃MENU

Select a program
Use \$ RETURN Exit MENU

To Change or Correct Setting the CHANNEL BLOCK

Before completing it

Press BACK SPACE to return to the item to be changed or corrected. When it is displayed in red, set it again by using the \triangle + or ∇ -.

After completing it

Select the CHANNEL BLOCK screen.

Then, press RETURN to return to the item to be changed or corrected.

When it is displayed in red, set it again by using the \triangle + or ∇ -.

Notes

Set," pp 25-29.

the sound is muted.

block is being activated.

If you have not set the clock correctly, the

CHANNEL BLOCK will not operate at the

proper time. To set the clock, see "Setting

the Clock-Auto Clock Set/Manual Clock

All the settings including CHANNEL

BLOCK will be erased if you unplug the VIDEO TV or a power failure occurs. Reset the TIMER by following steps 1-9.

If you select the blocked channel during

the time you set, the message BLOCKED

appears and the picture is blocked and

· Recording is possible while the channel

If the CHANNEL BLOCK and ON/OFF

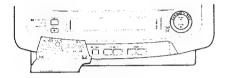
TIMER settings are overlapped, only the CHANNEL BLOCK function operates.

To return to the normal screen Press MENU.

Note

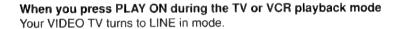
Using the Play On Functions

You can use PLAY ON on your VIDEO TV to monitor quickly other Video/Audio sources (such as a camcorder, a video game, etc).



- Connect an AV cable(Video camera, Video game, etc) to LINE IN jacks on the front door or rear panel of your VIDEO TV.
- Press the PLAY ON(Green Color button) inside the front door. "LINE" appears on the screen.

Although your VIDEO TV is in TV mode or VCR play back mode, it turns to LINE IN mode directly by pressing PLAY ON.



To return to TV mode during play on mode Press INPUT SELECT or CH +/-

When you press PLAY ON twice during power on VIDEO TV turns off.

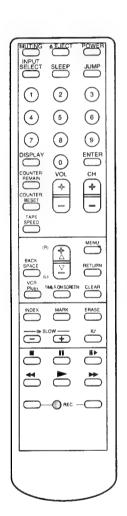
When you press PLAY ON during power off
Your VIDEO TV turns on and turns to LINE IN mode directly.
When you press this button again, your VIDEO TV will be turned off.

When you press PLAY ON during recording or LINE in mode, The PLAY ON button does not operate.

To turn it off, press POWER.

Note

When the LINE IN jacks inside the front door and on the rear panel are connected to external equipment at the same time, the LINE IN jacks inside the front door are prior to them on the rear panel.



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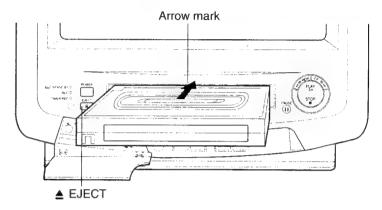
Playing Back a Video Tape





Inserting a Video Cassette

Insert a video cassette with the arrow mark facing upwards.



2 Gently press the center of the front side of the cassette until the mechanism draws it into the compartment.

When the cassette has been inserted, the [/ STAND BY indicator lights and the VIDEO TV turns on automatically.

Note

When you insert a cassette without a safety tab, playback starts automatically (AUTO PLAYBACK function).

Ejecting the cassette

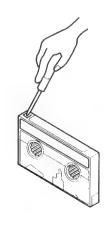
Press EJECT ▲.

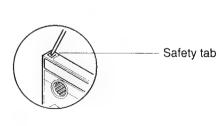
You can also eject the cassette when the power is off.

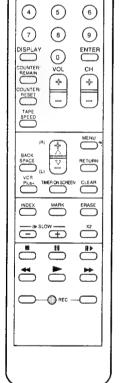
Protecting your cassette against accidental erasure

The cassette is provided with a safety tab to protect against accidental recording. Break off the safety tab with a screwdriver or other suitable tool.

If the safety tab is removed, the cassette will be ejected when you try to record on the cassette.

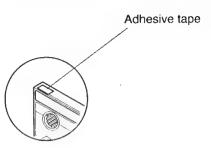






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To record on a cassette with the safety tab broken off, simply cover the tab hole with adhesive tape.



Maximum recording time of a tape

The quality of tape you use greatly affects record/playback quality and the life of the VIDEO TV. Use only cassette tapes that have the official VHS logo.

High-grade tapes give the best results, especially at the EP speed. They also have a better oxide coating that helps prevent dirty video heads. Although T-160 tapes offer the longest recording time, they contain thinner tape that is more likely to stretch or cause tape jams. We suggest that you use T-120 or shorter tapes.

Recording in the SP or EP mode is possible with this unit. When recording, select the desired recording mode (SP or EP) with TAPE SPEED on the Commander. During playback, the unit automatically detects the recording format, and then plays back the tape in the appropriate mode.

The following chart shows the maximum recording times for T-60, T-120 and T-160 tapes at the recording speeds as below.

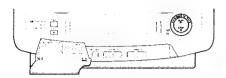
Speed	T-60	T-120	T-160
SP	1 Hour	2 Hours	2 2/3 Hours
	(60 Minutes)	(120 Minutes)	(160 Minutes)
EP	3 Hours	6 Hours	8 Hours
	(180 Minutes)	(360 Minutes)	(480 Minutes)

Playing back a video tape in the LP mode is possible but recording in this mode is not possible with this unit.





H≽



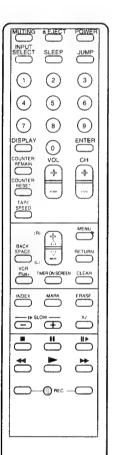
Playing Back a Prerecorded Cassette Tape

Insert a prerecorded cassette into the tape compartment. The VIDEO TV automatically turns on.

Note

When playing back rental tapes, select NOISE REDUCTION:ON in main menu image detail improves.

If playback does not start, press PLAY ▶. The tape plays back at the speed at which was recorded.



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To stop playback

Press STOP ■.

To stop playback for a moment

Press PAUSE II.

III appears on the screen and image will stop on the screen.

To resume playback, press PAUSE ■ or PLAY ▶.

▶ appears on the screen.

When the tape is played back to the end

The tape is automatically rewound to the beginning (auto rewind). The power remains on.



To rewind the tape to its beginning and to playback automatically (Auto Playback Function)

In the main menu, press \triangle + or ∇ - to select SET UP during playback or stop mode and then press RETURN. And press \triangle + or ∇ - to select AUTO REPEAT and then press RETURN. By using \triangle + or ∇ -, select AUTO REPEAT to ON.

Variable Speed Playback

You can enjoy playing back pictures in variable speeds on the VCR.

Still Picture

During playback mode, press PAUSE ■. To resume normal playback, press PLAY or PAUSE ■.

Notes

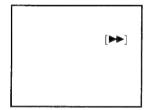
- No sound accompanies the picture, which may be unstable or have video "noise" in it. This
 is normal
- If the VCR is left in the pause mode for more than about 5 minutes, the VIDEO TV will be in playback mode automatically.

To see a slow motion (Slow Picture)

Press -SLOW+ during playing back.

To advance the picture frame by frame (Frame Picture)

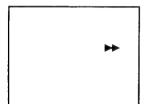
Press FRAME III during Still Picture.



To advance the tape rapidly

While the tape is being played back, pressing FAST FORWARD ► will move the tape forward at high speed so you can see the picture and choose where to stop. When you do this, [►] appears on the screen.

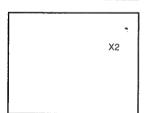
If you release the button, the VCR will return to normal playback.



When tape is not being played back and the VCR is in the stop mode, pressing FAST FORWARD► winds the tape forward at very high speed without displaying

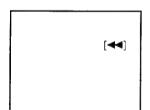
When you do this, >> appears on the screen.

You can stop the forward running of the tape at any time by pressing STOP ...



If during the operation, the tape rewinds forward to the end, the machine will automatically stop and then rewind the tape back to the beginning again.

By pressing X2, you can now run through a tape at twice normal speed to find the exact place you want. Revert to normal speed by pressing PLAY .



To rewind the tape rapidly

At the end, STOP appears on the screen and invite you to press PLAY▶.

Viewing TV Programs During Tape Playback

While a tape is being played, you can switch to watching TV broadcasts. Press STOP ■.

The VIDEO TV returns to normal TV reception mode.



Playing Back a Tape Recorded on Another VCR

When playing back a tape recorded on another VCR, there might be some picture noise.

Tracking ensures that the tape is correctly aligned with the playback head. It only works in the "playback" mode and its principle purpose is to minimize picture shake and what is called "noise" (fuzzy lines across the picture during playback and still picture).

It is adjusted either automatically or manually.

Automatic tracking adjustment function

When playback starts, the auto tracking automatically adjusts the picture. "AUTO TRACKING" flashes for 5 seconds.

The automatic tracking control is activated in the following conditions:

- . When the cassette is inserted for the first time.
- When the recording mode on the playback tape is switched from SP to EP and back again.
- · When the picture is distorted by scratches on the tape.
- When TRACKING AUTO:ON is selected in the Tracking menu after the picture is adjusted automatically.

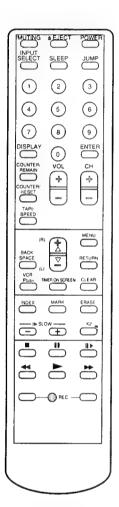
If auto tracking does not work, the tracking was probably last adjusted manually.

Adjusting the tracking manually during playback

When the playback picture proves to have streaks or snow during normal playback, Still picture or Slow picture, adjust the picture manually using the Tracking menu. Press either \triangle + or ∇ - to select TRACKING ADJUST in Tracking menu to obtain the best possible picture. Press RETURN and adjust by pressing \triangle + or ∇ -. When playing back a tape recorded on another VCR, the tracking condition is automatically adjusted on this VCR.

Notes

- Auto tracking adjustment may be impossible when the recording condition of the tape is poor.
- During auto tracking adjustment, streaks or noise may appear.



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For seeing the remaining tape time, first

If you want to see the remaining tape time in T-120, press RETURN then $\triangle +$ or ∇ - until T-120 appears in TAPE REMAIN screen. For OTHERS, press the button until

□ Note

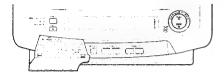
check the tape mode.

OTHERS appears.

Us	sing COUNTER/REMAIN	
To d	isplay the counter, press COUNTER /REMAIN	
	tape counter shows the tape travel time in	
	rs, minutes and seconds during recording or back.	
piay		
		SP 0:00:00
	ee the remaining tape time during recording or	
	pack, press COUNTER/REMAIN twice. remaining tape time appears with "REM."	
•	.c.manning tape into appears that the	
		REM 1 : 36
Ųs	sing Counter Memory Function	\tilde{x} \tilde{x}
reco	counter memory makes it easy to return to a particul rding or playback. The tape stops when the counter rure is especially helpful when editing a recording.	
1	Press COUNTER/REMAIN to see the counter.	
•		
_	Start recording or playback, and press	
2	COUNTER RESET at the point you want to	
	return to. The counter displays SP 0:00:00.	
	The seamer captage or election	
		SP 0:00:00
	•	
2	Press STOP ■ when you finish recording or playing	the tape
3	Tross Cron 2 William you million resortating or playing	and tape.
4	Press REWIND/REVIEW ←. The tape stops at SP 0:00:00.	
_		
_	Press PLAY ▶ to play the tape.	

Recording TV Programs

Recording TV Programs



Caution

Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission and/or program owner.

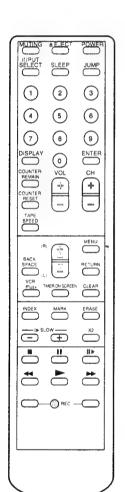
- Insert a cassette with the safety tab.
 The VIDEO TV turns on automatically (Auto power on).
- 2

Select the recording tape speed, SP or EP, with TAPE SPEED.

Select the channel to be recorded with CH +/- or 0-9 buttons.

Press the two REC buttons on the Commander at the same time, or the REC button on the unit.

The REC indicator lights.



To stop recording

Press STOP ■.

Temporarily to stop recording at a particular point

Press PAUSE II to eliminate unwanted station breaks or program material while recording a TV program.

REC II appears on the screen.

To resume recording, press PAUSE II again.

When the recording pause mode lasts for more than approximately 5 minutes, the unit enters the stop mode.

Note -

When the tape reaches its end

The tape rewinds to the beginning. The power will remain on.

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Recording a Program Without Watching the TV

Turn off the power of the TV.

There will be no interference with the recording.

You cannot watch another program while recording one program.

Recording TV Programs using VCR Plus +

VCR Plus+ is a feature in SONY VCRs that simplifies the task of programming the VIDEO TV to make timer recordings.

How VCR Plus+ works

Whenever you want to record a TV program, all you need to do is to look up the program's "PlusCode," a number assigned to each program that's published in the TV section of most newspapers, cable TV listings, and even TV GUIDE magazine. Then, just enter the PlusCode of the program you want and the VIDEO TV is automatically programmed to record that show. It's that simple. With VCR Plus+, you no longer have to go through a lengthy and often repetitive procedure when you set start and stop times, channel numbers, and dates. All this information is automatically sent to your VIDEO TV when you enter the program's PlusCode.

Setting Up VCR Plus +

Setting up your VIDEO TV involves coordinating the TV channel number (the number you turn on your set to watch a program) with the guide channel number (the number that's assigned to that channel in your program guide). To get the guide channel numbers, find the "Channel Line-up Chart" in the program guide for your area that features VCR PlusCodes. It usually looks like the example on page 45.

For each channel your VIDEO TV receives, use the Channel Line-up Chart to check that the channel numbers match. For example, if HBO is listed in the Channel Line-up Chart on channel 33, and your VIDEO TV receives HBO on channel 15, you need to coordinate these numbers using the following procedure. For channels in which the numbers are the same (for example, if your VIDEO TV receives HBO on channel 33, and the guide channel number is 33), you can skip this procedure.

In main menu, press △+ or ▽- to select SET VCR Plus+ CHANNELS.



MENU

VIDEO
SET UP
CAPTION VISION
NOISE REDUCTION: OFF
TRACKING
SET VCR Plus+ CHANNELS
LANGUAGE/IDIOMA

Use \$ RETURN Exit WENU

Press RETURN
The SET VCR Plus+ Channels screen appears and the GUIDE CH is highlighted.



GUIDE CH TV CH
... - ...

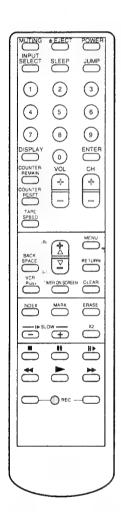
Push II - 9 keys to set

Program GUIDE CH

Or Push RETURN to see

VCR Plus+ CHANNEL LIST

SET VCR Plus+ CHANNELS



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Press 0-9 to enter the channel number assigned in the program guide and press ENTER.

The TV CH is highlighted.

1	2	(3)
---	---	-----

(b)



ENTER

SET VCR Plus+ CHANNELS GUIDE CH TV CH

25 - 25

Push 0 - 9 keys to set your TV CH

Then push ENTER

Press 0-9 to enter the actual number on your VIDEO TV channel.



SET VCR Plus+ CHANNELS GUIDE CH TV CH

25

Push 0 - 9 keys to set program GUIDE CH

Or Push RETURN to see VCR Plus+ CHANNEL LIST

SET VCR Plus+ CHANNELS GUIDE CH TV CH

Push II - 9 keys to set your TV CH

Or Push RETURN to see VCR Plus+ CHANNEL LIST

Repeat steps 3-4 for each channel whose numbers don't match.

When you have set all channels, press RETURN to confirm your channel settings.



VCR Plus+ CHANNEL LIST Page 1 GUIDE TV 33 - 18 59 - 3 61 - 47 77 - 35 90 - 8 **GUIDE TV** 3 - 15 5 - 22 6 - 17

Use

to change page
Push MENU to Exit

Example of "PlusCode"

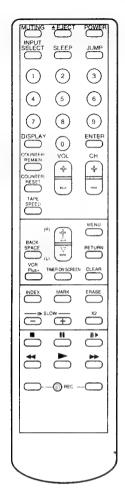
PlusCode / 5:30 14 MOVIE - Musical (2hrs.) 33044 2 SPORTS - Golf (1hr. 25min.) 42060 CNN WS 9974 6:30 2 3 4 DRAMA-Comedy(2hrs.)17390 5 SCIENCE AND TECHNOLOGY (1hr.15min.) 73457

Example of "Channel Line-up Chart"

	CABLE CH	CABLE TV	VCR Plus+ GUIDE CH
	16	American Movie Classics	35
	17	BRV Bravo (program grid only)	54
	20	CNN Cable News Network	42
	21	CSP C-SPAN	28
	22	DIS The Disney Changel	17 359
	25	DSC The Discovery Channel	37
	34	ESN ESPN	// 34
	35	FAM The Family Channel	47
	5	HBO Home Box Office	33
	27	LIF Lifetime	46
	29	MAX Cinemax	45
	30	MTV Music Television	48
	31	NIK Nickelodean	38
ſ	38	SC Spetrs-Chamnel	59
	39	SCA Sports Chargnel America	70
,	45	SHO Showtime	41
	17	TBS TBS SuperStation	43
	44	TMC The Movie Channel	58
	49	TNN The Nashville Network	49
	50	TNT Turner Network Television	52
	51	USA Network	44

Note

To return to the normal screen. Press MENU.



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Before you start

- · Check that the clock is set correctly.
- Insert a tape with its safetly tab in place.
 Make sure the tape is longer than the total recording time.
- Turn on your VIDEO TV. When using a cable box, turn it on.

Notes

- You cannot set VCR Plus+ in the following cases:
 - When the VIDEO TV is turned off.
- The timer will not accept setting in the following cases:
 - When you select Daily for a Saturday and Sunday program.
 - When you select Daily or Weekly for a program more than seven days ahead. When you enter the PlusCode of a program that has already ended.
- If the 6 programs have already been preset, "6 PROGRAMS HAVE ALREADY BEEN SET" appears on the screen.

Recording TV Programs

You can preset up to six programs within a one month time frame.

→ Press VCR Plus+ .



VCR Plus+ 1/6 SAT

PlusCode TAPE SPEED
[------] [AT]

Enter Program's PlusCode
using 0-9 keys

To change tape speed push TAPE SPEED

Press 0-9 to enter the Plus Code of the program you want to preset.

If you've made a mistake, press CLEAR and enter the PlusCode again.



VCR Plus+ 1/6 SAT

PlusCode TAPE SPEED
[26854---] [AT]

After entering PlusCode,
pusj RETURN

If you make a mistake, push CLEAR

Press TAPE SPEED to select the tape speed, SP, EP or AT.



VCR Plus+ 1/6 SAT

PlusCode TAPE SPEED
[26854---] [SP]

Enter Program's PlusCode
using 0-9 keys

To change tape speed push TAPE SPEED

The recording information appears on the screen. Check that the information is correct. If it is not, press CLEAR to cancel.

To preset another timer setting, repeat steps 1 to 4.

Notes

 When you press TIMER ON SCREEN after having checked the recording information, the TIMER SET/ CHECK menu appears with the recording information of program presetting using VCR Plus+. VCR Plus+ 1/6 SAT

PlusCode TAPE SPEED
[26854] [EP]
RECORDING TIME
DATE START STOP CH
1/25THU 4:30PM 6:00PM 03EP

To set timer, push POWER
To cancel, Push CLEAR

- Once, Daily or Weekly Setting
 Press RETURN to return curser to the item presetting in TIMER SET/CHECK menu (Then refer to the step 3 on page 48 and Daily/Weekly Recording on page 49.).
- Press POWER to turn off the VIDEO TV.
 The TIMER REC indicator lights up and the VIDEO TV stands by for recording.
 When using a cable box, leave it on. The VIDEO TV automatically turns on, records the program and turns off.



You can preset up to six recordings up to one month in advance. The recordings can be preset with the Commander while referring to the TIMER SET/CHECK display on the screen.

Before you begin, check the following points.

- The date and clock must be set correctly. (See "Setting the Clock -AUTO/MANUAL CLOCK SET" on pp. 25-29.)
- · Make sure that the cassette tape is long enough to record all the programs.
- · Make sure that the safety tab on the cassette is not broken off.

Recording from today to one month later

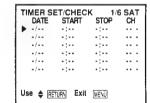
If today is August 31st, you can set the timer to record a program broadcast between today and September 30 (for 31 days). If today is January 31st, you can set the timer to record a program broadcast between today and February 28th (for 29days). A leap year is automatically considered.

Setting the Timer

Example: Suppose you want to record a program broadcast on channel 26 from 9:00 PM on Wednesday January 10 in EP mode. Note that 12:00 AM is midnight and 12:00 PM is noon.

■ Press TIMER ON SCREEN.
The TIMER SET/CHECK screen appears.





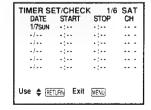
Press RETURN.

Make sure that today's date changes in red.

If not, reset the correct time. See "Setting the Clock - AUTO/MANUAL

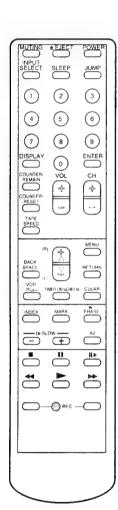
CLOCK SET" on pp. 25-29.







During timer recording, [50] / STAND BY indicator lights.

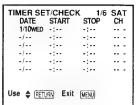


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Press △+ or ▽- to set the month and date to 1/10 WED.

The day of the week is automatically set.





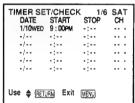
Press RETURN to change the hours section under "START" in red then △+ or ▽- until 9 PM appears.



Press RETURN to change the minute section under "START" in red then △+ or ▽-until 00 appears.

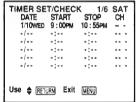






Press RETURN.
The hours section under "STOP" changes in red. Set the turn-off time referring to steps 4 and 5.

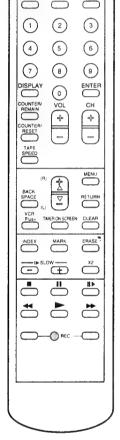




Press RETURN to change the CH position in red then △+ or ▽-until 26 appears.







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Press RETURN to change the recording speed position in red then $\triangle +$ or ∇ until EP appears.

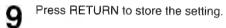




TIMER SET/CHECK K 1/6 SAT STOP CH 10:55PM 26EP DATE START 1/10WED 9:00PM -1---:--. Use \$ RETURN Exit MENU

Note

The AT (AUTO SPEED) mode starts recording at the SP speed, but if it determines there isn't enough tape left to complete the programmed recording, it switches to the EP speed.





▶ 1	ATE /10wed			CH
		-:	-:	
	/	-:	-:	
-	/	-:	-:	
٠.	/	-1	-:	
-	/	-:	-:	
Use	♦ RETU	RM Exit	MENU	

After you finish programming, press POWER to turn off the VIDEO TV. The TIMER REC indicator lights.

To change or correct the setting before completing it

Press BACK SPACE to return to the item to be changed.

To preset another program

Move the cursor to the second line after step 9 and repeat steps 2 to 10.

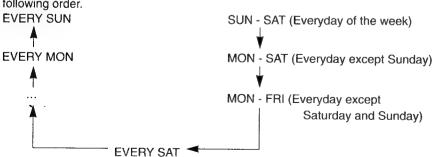
Daily/Weekly Recording

You can preset the timer-activated recording to the same program everyday of the week (Daily recording), or one day of the week(Weekly recording).

Follow steps 1 through 2 in "Setting the Timer" on page 47.

You can select the following programs.

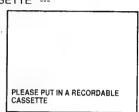
Each time you press ∇-, the indication under "DATE" on screen changes in the following order.



Notes

The following messages under each case appear on the screen:

 "PLEASE PUT IN A RECORDABLE CASSETTE" ---



When switched to stand-by mode for timer recording, if a cassette is not inserted or a cassette without safety tab is inserted.

 "PLEASE PUSH POWER OFF TO SET TIMER"---

When the VIDEO TV is still turned on before the timer recording starts or when SLEEP OFF time and TIMER REC START overlap.

- "PLEASE STOP THE TAPE" ---When TIMER ON SCREEN is pressed at the same time the tape is being played back.
- "VCR IS RECORDING" ---When PLAY, FAST FORWARD, REWIND /REVIEW, EJECT, CH +/-, 0~9 buttons. INPUT SELECT, JUMP or MENU is pressed at the same time the timer recording is being done.
- "TIMER REC STARTS IN 5 MINUTES" ---5 minutes before timer recording starts.
- "PLEASE SET THE CLOCK FIRST"---When TIMER ON SCREEN is pressed in the condition the current time is not set.
- "VCR is TIMER RECORDING"---When STOP button is pressed during recording. The recording is not stopped.
- · To stop the Timer Recording
 - 1. Press TIMER ON SCREEN TIMER SET/CHECK screen appears.
 - 2. Press △+ or ▽- to select TIMER REC PROGRAM.
 - 3. Press CLEAR The program is cleared and the timer recording stops.

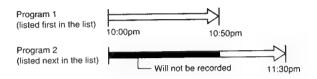
(7)

TAPE

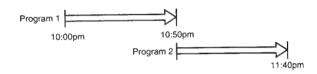
When Preset Timer Recordings Overlap

If the turn-on time of two programs are the same

The program listed first on the TIMER SET/CHECK display has priority over the other programs. The timer recording of lower priority programs will be done from the point after program 1 is finished.

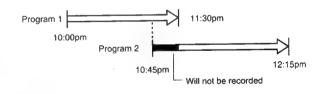


If the recording start time of program 2 is the same as the recording end time of program 1



If the recording start time of program 2 comes before recording of program 1 is over

The recording of program 2 will begin after program 1 is finished.



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Note

If a power interruption occurs

- If a power interruption lasting less than approximately three hours occurs while the VCR is waiting for the preset time, the VIDEO TV re-enter the timer recording standby mode.
- If a power interruption lasting more than approximately three hours occurs before a timer recording, the memory clears. Reset the date and time for timer recording.
- If a power interruption lasting less than approximately three hours occurs during a timer recording, the VIDEO TV starts recording again.

If the recording start time of the program is same as the time set with ON/OFF TIMER (pp.30-32)

 The ON/OFF TIMER has priority over the timer recording so that the timer recording will not start. In this case, set the recording start time earlier than ON/OFF TIMER and the timer recording will start.



Timer Recording

Checking the Timer Settings

You can display all of the timer settings on the VIDEO TV screen to check the settings.

Press TIMER ON SCREEN.
The TIMER SET/CHECK screen appears.



TIMER SET/CHECK 1/6 SAT DATE START STOP CH ▶ 1/10WED 9:00PM 10:55PM 26EP 1/11THU 1:00EM 2:15PM 10AT 1/12PH 1:00EM 2:15PM 10AT SUN-SAT 11:00AM 2:15PM 25AT EVERYSAT 11:00AM 2:15PM 25AT

Press TIMER ON SCREEN again to return to the original screen.

Notes

The TIMER SET/CHECK display

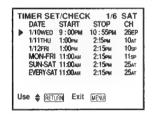
- When a recording is set for only one day, that setting is erased from the TIMER SET/CHECK display after the recording is over.
- The timer recording programs by using VCR Plus+ is also displayed in the TIMER SET/CHECK on-screen menu.

Changing or Cancelling the Timer Settings

The timer settings can be changed or cancelled by referring to the TIMER SET/CHECK display.

■ Press TIMER ON SCREEN.
TIMER SET/CHECK screen appears.





Press △+ or ▽- to move the cursor to the program you wish to change or cancel.



TIMER SE DATE 1/10WED 1/11THU 1/12FRI MON-FRI SUN-SAT EVERY-SAT	START 9:00PM 1:00PM 1:00PM 11:00AM 11:00AM	K 1/6 STOP 10:55PM 2:15PM 2:15PM 2:15PM 2:15PM 2:15PM	SAT CH 26EP 10at 10sP 11sP 25at 25at
Use ♦ RET	(AN) Exit	MENU	

3 To change it, flash the item to be changed by pressing BACK SPACE and make the required changes by pressing △+ or ▽-.





. To cancel it, move the cursor to the item to be cancelled by pressing $\triangle +$ or $\nabla -$ then press CLEAR.

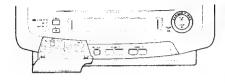
Press TIMER ON SCREEN to return to the original screen.

Notes

To stop recording after the timer recording has started

- 1. Press POWER to ON.
- 2. Press TIMER ON SCREEN.
- Press △+ or ▽- to move the cursor to the program under recording.
- 4. Press CLEAR.
 - Recording stops.
- 5. Press TIMER ON SCREEN to return to the original screen.

Quick Timer Recording



To extend the Quick Timer Recording time, press QUICK TIMER REC. to advance the recording time in 30-minute

 To clear the Quick Timer Recording setting, press QUICK TIMER REC until

 If the tape runs out during Quick Timer Recording, recording will stop and the power goes off. The tape will not rewind

 If a power interruption occurs during Quick Timer Recording, recording will stop and the power goes off. If the power

interruption lasts less than three hours and the power is restored before the

recording end time, recording will start

Notes

increments.

time length is 0:00

automatically.

again from that point.

This function is convenient when, for example, you want to set the VCR to start recording immediately without going through the whole timer setting procedure.

Notes

- Make sure that the clock is set correctly before you activate Quick Timer Recording.
- During Quick Timer Recording, you cannot change the channel on the VIDEO TV.
- Insert a cassette. The VIDEO TV automatically turns on.
- Press INPUT SELECT so that a channel number appears.
 Press TAPE SPEED to select the recording speed, SP or EP.
- Select the desired channel number with the 0-9 buttons or CHANNEL +/-.
 If you try to select the Cable TV channel, first set CABLE to ON in SET UP menu.
- 4 Press QUICK TIMER REC on the front panel.

QUICK TIMER REC QUICK TIMER 0:00

QUICK TIMER

Each time you press QUICK TIMER REC, the time length advances in 30-minute increments up to 8 hours.

QUICK TIMER REC

After you select the desired time length, Quick Timer Recording starts from that point.

Chapter 5: Using Advanced VCR Features

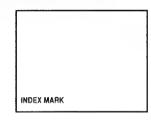


INDEX signal marks on the tape let you scan through the start of different programs or search for a specific section of tape.

Marking INDEX Signals

Automatic INDEX mark

An INDEX signal is automatically marked at the beginning of recording.

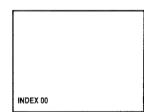


Manual INDEX mark

INDEX signals can be marked at any desired point during any recording or normal playback.

Press INDEX once. INDEX 00 appears.



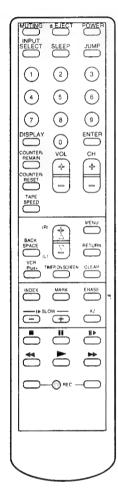


Then press MARK at the point where you want to mark INDEX signal. INDEX MARK appears on the screen.



Motos

- Leave an interval of more than 2 minutes between INDEX signals when marking them one
 after the other so that the VCR can detect them correctly.
- While an INDEX signal is being marked during playback, the recorded sound will not be heard, but it will not be erased.
- You cannot mark an INDEX signal in the following cases:
 - On a tape without safety tab.
 - On an unrecorded portion of a tape.
 - Immediately before a point on the tape where the tape speed changes.



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Playing Back From the INDEX Point

The beginning of each program can be found and played back by using the INDEX signals.

Insert a cassette with INDEX signals.

Press INDEX once during playback. INDEX 00 appears on the screen.





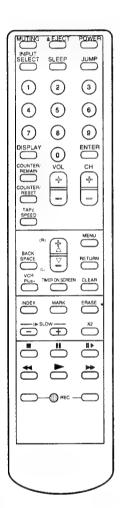
Press either FAST FORWARD → or REWIND/REVIEW ← to start the INDEX scan. The tape rewinds or rapidly advances to the next marked signal.

The tape plays back for about 5 seconds, then rewinds or rapidly advances to the next INDEX signal. Each time INDEX signal is detected and playback begins, the INDEX scan number (INDEX SCAN 04) appears.



When the desired program is detected, press PLAY .

Playback starts from that point.



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Locating the Desired Program (INDEX Search)

A particular program can be located and played back by designating how many INDEX signals ahead or behind that program is from the current position.

1

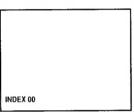
Insert a cassette with INDEX signals.

2

Press INDEX.

INDEX 00 appears.





Using the 0-9 buttons, enter the number of INDEX signals you want to skip. For example, if the tape is at INDEX 02 and you want to locate INDEX 05, press 0 3.

You can select maximum location by INDEX 99.

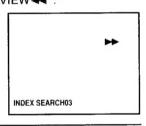
4

Press either FAST FORWARD ▶ or REWIND /REVIEW ◀ .

INDEX SEARCH03 appears on the screen. When
the desired signal is found, playback begins
automatically.







Erasing INDEX Signals

You can erase unnecessary INDEX signals.

1

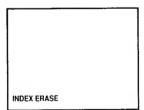
Press INDEX during STOP mode. INDEX 00 appears.

2

Press ERASE.

INDEX ERASE appears on the screen.





Press either FAST FORWARD► or REWIND/REVIEW .

The first subsequent INDEX signal is erased and the tape begins playback.

Note

While INDEX signal is being erased, the recorded sound is temporarily muted.

Appendix **Specification**

Television system	American TV standard	Power consumption	KV-13VM30/31: 86W KV-20VM30: 108W
Recording system	Rotary four-head helical scan system	Dimensions (WHD)	KV-13VM30/31:
Channel coverage	VHF: 2 - 13 UHF: 14-69 Cable TV: 1-125		15" X 16" X 15 ^{1/5} " 382 X 407 X 411mm KV-20VM30: 20 ^{1/2*} X 20 ^{1/2*} X 18 ^{3/5} 522 X 522X 474mm
Picture tube	KV-13VM30/31:		
	Microblack™Trinitron* tube 13-inch picture measured diagonally 14-inch picture tube measured diagonally KV-20VM30:	Weight	KV-13VM30/31: Net: 13.76 kg(30.3 lbs) Gross: 15.62 kg(34.4 lbs) KV-20VM30: Net: 26.1kg(58lbs) Gross: 30kg(66.1lbs)
	Trinitron® Tube 20-inch picture measured diagonally	Tape Speed	SP: 33.35 mm/sec. EP: 11.12 mm/sec.
	21-inch picture tube measured diagonally	Maximum recording/playback time	8 hours in EP mode
Antenna	75-ohm external antenna		
	terminal for VHF/UHF	Fast-forward and rewind time	Approx. 4 min. 30 sec. (T-120 tape)
LINE IN	VIDEO IN (phono jack) 2 each (Front/Rear) Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative	Supplied accessories	Remote commander RM-Y138: KV-20VM30 KV-13VM30 RM-Y138W: KV-13VM31 1 size AA (R6) battery (1) Antenna Adapter (1)
	AUDIO IN (phono jack) 2 each (Front/Rear) Input level: 400 mVrms Input impedance: 47 kilohms		randina ridapidi (1)

Power requirements

120V AC, 60 Hz

Note

Design and specifications are subject to change without notice.

Troubleshooting



If you have a problem with the VIDEO TV, first check the power cord connection, then go through the following list. Should the difficulty persist, unplug the unit, and contact your Sony dealer or local authorised Sony service facility.

VIDEO TV RECEPTION

Symptoms	Suggestions
No picture or sound	 Make sure the unit is plugged into a working AC outlet. Make sure it is not set to LINE IN mode. Check that POWER is set to ON. Check the antenna wires, connections and direction.
Picture OK, sound poor	Adjust the sound.
Sound OK, no picture	Try another channel. Adjust the picture.
Picture weak or blurred	Check the antenna wires, connections and direction. Adjust picture control.
Picture rolls vertically	Check the antenna wires, connections and direction.
Ghosts (multiple images)	Check the antenna wires, connections and direction. Install a directional antenna.
Wrong color or no color	Adjust color and hue controls.
No response to button pressing	Press the buttons carefully again. Unplug the set, then plug it in and try again.
No response to remote control	 Check the polarity (+and -) of the batteries. Replace the batteries.

Troubleshooting

VCR OPERATION

Symptoms	Suggestions
Cannot load video cassettes	 Insert the cassette with the window side up and the safety tab facing you. Check if a video tape is already in the VCR.
No operation when buttons are pressed	Cancel the Quick Timer Recording.
Auto play function doesn't work or TV programs can't be recorded	 Make sure that the receiving channel of the set is properly tuned. Make sure that the safety tab on the video cassette tape is still intact. Check antenna wires, connections and direction.
Timer recording can't be performed	 Make sure the recording start/stop time is correct. Reconnect the power plug to an AC outlet, and reset the program recordings.
There is no picture in playback, or the playback picture is noisy or contains streaks	 Check that power is set to ON. Check that the video cassette tape has a recorded program. Check the tracking control (for noise streaks)
Video cassette tape was inserted incorrectly	Wait a few seconds. The video cassette tape should eject itself.